Digitized by the Internet Archive
in 2010 with funding from
NCSU Libraries

http://www.archive.org/details/catalog1932nort

North Carolina State College
OF
Agriculture and Engineering
OF
The University of North Carolina

THE SCHOOL OF AGRICULTURE
THE SCHOOL OF EDUCATION
THE SCHOOL OF ENGINEERING
THE SCHOOL OF SCIENCE AND BUSINESS
THE TEXTILE SCHOOL
THE GRADUATE SCHOOL
COLLEGE EXTENSION
THE SUMMER SCHOOL

1932-1933

APRIL, 1933
STATE COLLEGE STATION
RALEIGH

TABLE OF CONTENTS

College Calendar
Board of Trustees
Officers of Administration
Faculty
Fellows, Scholars, and Student Assistants
Agricultural Experiment Station Staff
Agricultural Extension Service and Home Economics Staff
Farm Demonstration Work
Home Demonstration Work

General Information—
- History
- Organization
- Buildings
- Dormitories
- Laboratories, Shops and Facilities
- Student Activities
- Events
- Physical Education and Athletics
- Military Training
- Information for Applicants
- Medals and Prizes

The School of Agriculture—
- Agricultural Economics
- General Agriculture
- Agricultural Specialists
- Forestry
- Landscape Architecture
- The Agricultural Experiment Station
- Coöperative Agricultural Extension

The School of Education—
- Teachers of Agriculture
- Teachers of Industrial Arts
- High School Teachers

The School of Engineering—
- Architectural Engineering
- Ceramic Engineering
- Chemical Engineering
- Civil Engineering
- Civil Engineering II—Highway Engineering
- Civil Engineering III—Construction Engineering
- Civil Engineering IV—Sanitary Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Mechanical Engineering—Aeronautical Option
- Mining Engineering
- The Engineering Experiment Station

The School of Science and Business—
- Business Administration
- Industrial Management
- General Business
- Biology
- Chemistry
- Industrial Chemistry
- Physics

The Textile School—
- Textile Manufacturing
- Textile Chemistry and Dyeing
- Weaving and Designing
- Yarn Manufacture
- Textile Research

The Graduate School—
- Organization and Purpose
- Graduate Studies
  - Fellowships and Scholarships
  - Degrees
  - Courses for Graduates

College Extension Division
Summer School
Description of Courses

Forty-first Annual Commencement
Medals and Prizes Awarded

COLLEGE CALENDAR

1933

First Term

Sept. 14, Thursday, 3:00 P. M. ..... College Faculty Meeting
Sept. 15, Friday ..... Registration of Freshmen
Sept. 18, 19, Monday and Tuesday ..... Admission of students from other institutions presenting credits for advanced standing
Sept. 20, Wednesday ..... *Registration of Sophomores, Juniors, Seniors, and Graduate Students
Sept. 21, Thursday ..... Class work begins
Sept. 30, Saturday, 12:00 Noon ..... Last day in the first term for registration or for changes in registration
Nov. 6, Monday ..... Mid-term reports due
Nov. 11, Saturday (Not a holiday) ..... Observance of Armistice Day
Nov. 30, Thursday ..... Thanksgiving holiday
Dec. 15, Friday ..... First term ends

1934

Second Term

Jan. 3, Wednesday ..... *Second term registration of all students
Jan. 4, Thursday ..... Class work begins
Jan. 11, Thursday, 12:00 Noon ..... Last day in the second term for registration or for changes in registration
Feb. 12, Monday ..... Mid-term reports due
Mar. 21, Wednesday ..... Second term ends

Third Term

Mar. 27, Tuesday ..... *Third term registration of all students
Mar. 28, Wednesday ..... Class work begins
Apr. 3, Tuesday, 12:00 Noon ..... Last day in the third term for registration or for changes in registration
Apr. 11, Wednesday (Not a holiday) ..... Observance of Scholarship Day
Apr. 30, Monday ..... Mid-term reports due
June 8, Friday ..... Third term ends
June 10, 11, 12, Sunday, Monday, and Tuesday ..... Commencement Exercises
June 18, Monday ..... *Registration for Summer School
June 19, Tuesday ..... Class work begins
July 27, Friday ..... Summer term ends
July 31, August 1, 2, 3, Tuesday, Wednesday, Thursday, and Friday ..... Farm and Home Week

Final examinations are held on the five days preceding the end of each term.

* An extra fee is charged for registration after the day designated for registration.

1933

JANUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

MARCH

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

APRIL

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

MAY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	11
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	21	23
24	25	26	27	28	29	30
31						

1934

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

BOARD OF TRUSTEES

GOVERNOR J. C. B. EHRINGHAUS, *Chairman Ex Officio*

HONORABLE A. T. ALLEN, *State Supt. Public Instruction, Member Ex Officio*

Term Expiring April 1, 1933

Name	*Address*	*County*
SYDENHAM B. ALEXANDER	Charlotte	Mecklenburg
PASCAL S. BOYD	Mooresville	Iredell
JOSEPHUS DANIELS	Raleigh	Wake
ARTHUR M. DIXON	Gastonia	Gaston
RICHARD T. FOUNTAIN	Rocky Mount	Edgecombe
*CHARLES W. GOLD	Greensboro	Guilford
MRS. ANNIE SHEPHERD GRAHAM	Edenton	Chowan
JAMES ALEXANDER GRAY	Winston-Salem	Forsyth
GEORGE C. GREEN	Weldon	Halifax
JUNIUS D. GRIMES	Washington	Beaufort
A. A. HICKS	Oxford	Granville
ROBERT E. LITTLE	Wadesboro	Anson
MRS. B. FRANK MEBANE	Spray	Rockingham
ANGUS W. McLEAN	Lumberton	Robeson
CAMERON MORRISON	Charlotte	Mecklenburg
HARRISS NEWMAN	Wilmington	New Hanover
D. REEVES NOLAND	Crabtree	Haywood
CLARENCE POE	Raleigh	Wake
MISS EASDALE SHAW	Rockingham	Richmond
*B. F. SHELTON	Speed	Edgecombe
GEORGE STEPHENS	Asheville	Buncombe
MRS. C. F. TOMLINSON	High Point	Guilford
IRVIN B. TUCKER	Whiteville	Columbus
J. KENYON WILSON	Elizabeth City	Pasquotank
GRAHAM WOODARD	Wilson	Wilson

Term Expiring April 1, 1935

ALEXANDER B. ANDREWS	Raleigh	Wake
DUDLEY BAGLEY	Moyock	Currituck
KEMP D. BATTLE	Rocky Mount	Nash
J. A. BRIDGER	Bladenboro	Bladen
MRS. MINNIE McIVER BROWN	Whiteville	Columbus
C. F. CATES	Mebane	Alamance
THURMOND CHATHAM	Winston-Salem	Forsyth
W. G. CLARK	Tarboro	Edgecombe
R. M. COX	Winston-Salem	Forsyth
CLAUDIUS DOCKERY	Mangum	Montgomery
R. A. DOUGHTON	Sparta	Alleghany
SAM J. ERVIN, JR.	Morganton	Burke

* Deceased

Name	*Address*	*County*
A. D. Folger	Mount Airy	Surry
C. A. Jonas	Lincolnton	Lincoln
L. J. Lawrence	Murfreesboro	Hertford
Kemp Plummer Lewis	Durham	Durham
Stahle Linn	Salisbury	Rowan
Mrs. E. L. McKee	Sylva	Jackson
J. E. Millis	High Point	Guilford
E. S. Parker, Jr.	Greensboro	Guilford
J. J. Parker	Charlotte	Mecklenburg
R. Grady Rankin	Gastonia	Gaston
C. G. Rose	Fayetteville	Cumberland
Mrs. James L. Scott	Greensboro	Guilford
Fred I. Sutton	Kinston	Lenoir

Term Expiring April 1, 1937

J. L. Becton	Wilmington	New Hanover
Marvin Key Blount	Greenville	Pitt
T. C. Bowie	West Jefferson	Ashe
F. H. Coffey	Lenoir	Caldwell
Mrs. Julius Cone	Greensboro	Guilford
H. G. Connor	Wilson	Wilson
R. R. Eagle	New Bern	Craven
Mrs. E. C. Gregory	Salisbury	Rowan
John Sprunt Hill	Durham	Durham
J. M. Horner	Asheville	Buncombe
Mrs. Daisy Hanes Lassiter	Charlotte	Mecklenburg
Henry M. London (Secretary)	Raleigh	Wake
Charles E. Maddry	Raleigh	Wake
J. Thomas Mangum	Greensboro	Guilford
*J. G. Murphy	Wilmington	New Hanover
A. C. Myers	Gastonia	Gaston
J. T. Nelson	Lenoir	Caldwell
Robert N. Page	Aberdeen	Moore
*C. A. Penn	Reidsville	Rockingham
*A. A. Shuford	Hickory	Catawba
C. W. Tillett, Jr.	Charlotte	Mecklenburg
George R. Ward	Wallace	Duplin
Leslie Weil	Goldsboro	Wayne
Francis D. Winston	Windsor	Bertie

Term Expiring April 1, 1939

*A. J. Connor	Rich Square	Northampton
Burton Craige	Winston-Salem	Forsyth
Stuart W. Cramer	Cramerton	Mecklenburg
John G. Dawson	Kinston	Lenoir
Frank Dunlap	Wadesboro	Anson

* Deceased

Name	*Address*	*County*
J. M. Gamewell	Lexington	Davidson
A. H. Graham	Hillsboro	Orange
Harry P. Grier, Jr.	Statesville	Iredell
Luther T. Hartsell	Concord	Cabarrus
John W. Hinsdale	Raleigh	Wake
G. L. Lyerly	Hickory	Catawba
Isaac M. Meekins	Elizabeth City	Pasquotank
William D. Merritt	Roxboro	Person
*J. D. Murphy	Asheville	Buncombe
Walter Murphy	Salisbury	Rowan
Haywood Parker	Asheville	Buncombe
Mrs. Kate B. Reynolds	Winston-Salem	Forsyth
Henry M. Robins	Asheboro	Randolph
W. T. Shore	Charlotte	Mecklenburg
Lawrence Sprunt	Wilmington	New Hanover
Clinton W. Toms, Jr.	Durham	Durham
Charles Whedbee	Hertford	Perquimans
Mrs. Jessie Kenan Wise	Wilmington	New Hanover
W. H. Woolard	Greenville	Pitt
W. C. Woodard	Rocky Mount	Nash

EXECUTIVE COMMITTEE

Governor J. C. B. Ehringhaus, *Chairman ex officio*

John Sprunt Hill	Durham
Walter Murphy	Salisbury
S. B. Alexander	Charlotte
Mrs. Julius Cone	Greensboro
Josephus Daniels	Raleigh
Irvin B. Tucker	Whiteville
Clarence Poe	Raleigh
Charles Whedbee	Hertford
Miss Easdale Shaw	Rockingham
Haywood Parker	Asheville
John J. Parker	Charlotte
Leslie Weil	Goldsboro

* Deceased

OFFICERS OF ADMINISTRATION

EUGENE CLYDE BROOKS, A.B., Litt.D., LL.D.
President

FACULTY COUNCIL

BENJAMIN FRANKLIN BROWN, B.S.
Dean of the School of Science and Business

THOMAS EVERETT BROWNE, A.B., M.A.
Dean of the School of Education and Director of the Summer School

EDWARD LAMAR CLOYD, B.E., M.S.
Dean of Students

WILLIAM LYNDON MAYER, B.S., M.S.
Director of Registration and Assistant Purchasing Agent

ZENO PAYNE METCALF, B.A., D.Sc.
Director of Instruction, School of Agriculture

THOMAS NELSON, D.Sc.
Dean of the Textile School and Director of Textile Research

WALLACE CARL RIDDICK, A.B., C.E., LL.D.
Dean of the School of Engineering and Director of Instruction

IRA OBED SCHAUB, B.S.
Dean of the School of Agriculture and Director of Agricultural Extension

RHETT YOUMAN WINTERS, B.S., Ph.D.
Director of the Agricultural Experiment Station

OTHER ADMINISTRATIVE OFFICERS

ARTHUR FINN BOWEN, C.P.A.
Treasurer and Budget Officer

ALTON COOK CAMPBELL, M.D.
Physician

FRANK CAPPS, B.S., M.S.
Librarian, and Director of College Extension

MISS EMILY CHEEK, A.B., B.S.
Assistant Librarian

MISS CYNTHIA FRIERSON, B.S.
Assistant Registrar

FRANK HAMILTON JETER, B.S.
Director of Publicity

EDWARD S. KING, A.B.
Secretary of the Young Men's Christian Association

FRED EAVES MILLER, B.S.
Director of Station Farms

MARSHALL LE ROYCE SHEPHERD, B.S.
Associate Secretary of the Y. M. C. A.

MISS DOROTHY GRAY, A.B., B.S., in L. S.
Assistant Librarian

MRS. CHARLOTTE MONTGOMERY WILLIAMSON
Assistant Librarian

OTHER OFFICERS

MISS RUTH BOYETTE, R.N.
Superintendent of the Hospital

WILLIAM AUSTIN BRIDGEFORTH
Superintendent of Buildings and Grounds

LEONIDAS POLK DENMARK, B.E.
Alumni Secretary and Editor of the Alumni News

MISS LILLIAN FENNER
Dietitian

WILLIAM LEE GODWIN
Superintendent of the Laundry

LOUIS HINES HARRIS
Steward

ROMEO LEFORT, B.S.
Assistant to Dean of Students

JOSHUA PLUMMER PILLSBURY, B.S.
Landscape Architect

PERCY WALTER PRICE
Director of Music

ALEXANDER ALLEN RIDDLE
Superintendent of the Power Plant

ROSS SHUMAKER, B.Arch.
College Architect

LILLIAN LEE VAUGHAN, M.E.
College Engineer

TURNER TOBIAS WELLONS
Superintendent of Dormitories

FACULTY

EUGENE CLYDE BROOKS, *President.*
A.B., LL.D., Trinity College; LL.D. University of North Carolina; Litt.D., Davidson College.

DONALD BENTON ANDERSON, *Associate Professor of Botany.*
B.A., B.Sc. in Ed., M.A., Ph.D., Ohio State University.

LINDSEY OTIS ARMSTRONG, *Associate Professor of Education.*
B.S., N. C. State College.

STANLEY THOMAS BALLENGER, *Assistant Professor of Modern Languages.*
A.B., University of North Carolina.

LUTHER WESLEY BARNHARDT, *Assistant Professor of History and Political Science.*
A.B., Duke University; A.M., University of Wisconsin and two years of graduate work, University of Pennsylvania.

EDWARD MORRIS BERNSTEIN, *Associate Professor of Business Administration.*
Ph.B., University of Chicago; A.M., Ph.D., Harvard University.

EDWARD WILLIAM BOSHART, *Professor of Education (Industrial Arts and Vocational Guidance).*
B.S., M.A., Columbia University

CAREY HOYT BOSTIAN, *Assistant Professor of Zoology and Entomology.*
A.B., Catawba College; M.S., University of Pittsburgh.

WILLIAM STALEY BRIDGES, *Assistant Professor of Mechanical Engineering.*
B.E., M.S., N. C. State College.

HERMON BURKE BRIGGS, *Associate Professor of Engineering Drawing and Descriptive Geometry.*
B.E., M.E., N. C. State College.

BENJAMIN FRANKLIN BROWN, *Dean of the School of Science and Business.*
B.S., Northwestern University, and a year and a half of graduate work at the University of Michigan and the University of Wisconsin.

ROBERT RODERICK BROWN, *Assistant Professor of Electrical Engineering.*
B.S., University of Texas, and a year of graduate work at the Massachusetts Institute of Technology.

THOMAS EVERETTE BROWNE, *Dean of the School of Education, and Director of the Summer School.*
A.B., Wake Forest College; A.M., Columbia University.

WILLIAM HAND BROWNE, JR., *Professor of Electrical Engineering.*
A.B., B.E., Extra Ordinem, Johns Hopkins University.

FRANK CAPPS, *Associate Professor of Economics.*
B.S., M.S., N. C. State College and a year of graduate work at the University of North Carolina.

WILLIAM ELGIE CARRAWAY, *Assistant Professor of Military Science and Tactics.*
First Lieutenant, Infantry, U. S. Army; Graduate of the United States Military Academy; Graduate of the Infantry School, Fort Benning, Ga.

HUGH LYNN CAVENESS, *Assistant Professor of Chemistry.*
A.B., Trinity College; M. A., Duke University, and a year of graduate work, University of North Carolina.

JOSEPH DEADRICK CLARK, *Professor of English.*
B.A., Columbia University; M.A., Harvard University, and a year and a half of graduate work at the Universities of Virginia, Chicago, and Oxford.

WILLIAM LEANDER CLEVENGER, *Professor of Dairy Manufacturing.*
B.S. in Agriculture, Ohio State University, and a year of graduate work at Ohio State University and Amherst College.

EDWARD LAMAR CLOYD, *Dean of Students, Secretary of the Faculty.*
B.E., M.S., N. C. State College.

WILLIAM BATTLE COBB, *Professor of Soils.*
A.B., A.M., Ph.D., University of North Carolina.

FREEMAN WALDO COOK, *Instructor in Poultry Science.*
B.S., M.S., N. C. State College.

LEON EMORY COOK, *Professor of Education.*
A.B., B.S. in Agriculture, M.S., Cornell University.

JOHN BEE COTNER, *Professor of Plant Breeding.*
B.Pd., Missouri State Teachers' College; M.S., N. C. State College; Ph.D., Cornell University.

WILLIAM HOLDEN DARST, *Professor of Agronomy.*
B.S., Ohio State University; M.S. in Agriculture, Cornell University; graduate work at Michigan State College.

ROY STYRING DEARSTYNE, *Professor of Poultry Science.*
B.S., University of Maryland; M.S., N. C. State College.

JOHN BEWLEY DERIEUX, *Professor of Theoretical Physics.*
B.S., M.A., University of Tennessee; Ph.D., University of Chicago.

ALFRED ALEXANDER DIXON, *Associate Professor of Physics.*
B.S., Guilford College; M.A., Haverford College; Ph.D., Cornell University.

CHARLES GLENN DOAK, *Associate Professor of Physical Education, Baseball Coach.*

JOHN RICE EDEN, *Assistant Professor of Military Science and Tactics.*
Captain, Infantry, U. S. Army; A.B., DePauw University; Graduate of Infantry School, Fort Benning, Ga.; Croix de Guerre.

JOHN CLYDE FERGUSON, *Instructor in Mechanical Engineering.*
B.S., N. C. State College.

HILBERT ADAM FISHER, *Professor of Mathematics.*
M.S., N. C. State College; graduate of the United States Naval Academy; one year of graduate work in each the Naval Engineering School, the Naval Ordnance, and the Navigation School.

JAMES FONTAINE, *Assistant Professor of Mathematics and Research Assistant, Engineering Experiment Station.*
B.E., M.S., N. C. State College.

GARNET WOLSEY FORSTER, *Professor of Agricultural Economics.*
B.S., Cornell University; M.S., Ph.D., University of Wisconsin.

JOHN ERWIN FOSTER, *Instructor in Animal Husbandry.*
B.S., N. C. State College; M.S., Kansas State College.

JOHN MILTON FOSTER, *Associate Professor of Aeronautical Engineering.*
B.M.E., M.E., University of Kentucky.

ALVIN MARCUS FOUNTAIN, *Assistant Professor of English.*
B.E., M.S., N. C. State College; M.A., Columbia University; and a year and a half of graduate study at University of North Carolina, N. C. State College, and Columbia University.

RAYMOND SPIVEY FOURAKER, *Professor of Electrical Engineering.*
B.S. in E.E., A. and M. College of Texas; M.S., University of Texas.

MONROE EVANS GARDNER, *Professor of Horticulture.*
B.S., Virginia Polytechnic Institute.

KARL CLAUDE GARRISON, *Professor of Psychology.*
B.S., Peabody College; M.S., University of North Carolina; Ph.D., Peabody College.

*HERMAN CHRISTIAN GAUGER, *Instructor in Poultry Science.*
B.S., M.S., N. C. State College.

WILFRED GEORGE GEILE, *Associate Professor of Construction Engineering.*
Ph.B. in Civil Engineering, Yale University.

KARL B. GLENN, *Assistant Professor of Electrical Engineering.*
B.E., N. C. State College.

*On leave.

ERWIN ELMER GOEHRING, *Assistant Professor of Economics and Accounting.*
B.S., University of Missouri.

RICHARD ELLIOTT GREAVES, *Assistant Professor of Poultry Science.*
B.S., Wake Forest College; B.S., N. C. State College.

ARTHUR FREDERICK GREAVES-WALKER, *Professor of Ceramic Engineering.*
Cer. E., Ohio State University.

RALPH WALDO GREEN, *Associate Professor of Marketing.*
B.S., Cornell University; M.S., N. C. State College, and one year of graduate work at Cornell University, and University of North Carolina.

ALBERT HARVEY GRIMSHAW, *Associate Professor of Textile Chemistry and Dyeing.*
Graduate of the New Bedford Textile School; B.S., M.S., N. C. State College.

CLAUDE DELBERT GRINNELLS, *Associate Professor of Veterinary Science.*
B.S., University of Minnesota; D.V.M., Cornell University; M.S., University of Minnesota.

CORNELIUS SHERMAN GROVE, *Assistant Professor of Chemical Engineering.*
A.B., Lenoir-Rhyne College; B.S., Ch.E., N. C. State College; and a year of graduate work at Massachusetts Institute of Technology.

FREDERICK MORGAN HAIG, *Associate Professor of Animal Husbandry and Dairying.*
B.S., University of Maryland; M.S., N. C. State College.

C. HORACE HAMILTON, *Associate Professor of Rural Sociology.*
B.S.. Southern Methodist University; M.S., Texas A. and M. College; Ph.D., University of North Carolina.

DAVID B. HARDIN, *Instructor in Knitting and Designing.*
B.S., Texas A. and M. College; M.S., N. C State College.

*JOHN WILLIAM HARRELSON, *Professor of Mathematics.*
B.E., M.E., N. C. State College.

THOMAS PERRIN HARRISON, *Professor of English.*
B.S., Citadel; Ph. D., Johns Hopkins University; L.L.D., Citadel.

THOMAS ROY HART, *Associate Professor of Weaving and Designing.*
B.E., T.E., M.S., N. C. State College.

*LODWICK CHARLES HARTLEY, *Assistant Professor of English.*
B.A., Furman University; M.A., Columbia University.

RALPH WESLEY HAYES, *Professor of Forestry.*
B.S.F., M.F., Iowa State College.

CHARLES MCGEE HECK, *Professor of Physics.*
A.B., Wake Forest College; M.A., Columbia University; one year of graduate work at the University of Nebraska, and two years of graduate work at the University of Berlin.

ROSWELL WOODWARD HENNINGER, *Professor of Industrial Management.*
B.S., Massachusetts Agricultural College; M.S., N. C. State College; graduate work, Columbia University.

WILLIAM NORWOOD HICKS, *Assistant Professor of Sociology and Religion.*
B.E., N. C. State College; A.B., Trinity College; M.A., Oberlin College; M.S., N. C. State College.

JOHN THOMAS HILTON, *Professor of Yarn Manufacture.*
Diploma Bradford Durfee Textile School; B.S., M.S., N. C. State College.

LAWRENCE EARLE HINKLE, *Professor of Modern Languages.*
B.A., University of Colorado; M. A., Columbia University; D.S.ès L., Dijon.

JULIUS VALENTINE HOFMANN, *Professor of Forestry.*
B.S.F., M.F., Ph.D., University of Minnesota.

---

*On leave.

EARL HENRY HOSTETLER, *Professor of Animal Husbandry.*
B.S., in Agr., Kansas State Agricultural College; M.Agr., M.S., N. C. State College.

THEODORE SEDGWICK JOHNSON, *Professor of Industry.*
B.S., Denison University; C.E., Ohio State University; M.S., Denison University.

ARTHUR DAVE JONES, *Assistant Professor of Chemistry.*
A.B., A.M., University of Cincinnati, and three years of graduate work at the University of Cincinnati.

WALTER EDWARD JORDAN, *Associate Professor of Chemistry.*
B.S., M.A., Wake Forest College; M.S., N. C. State College; Graduate work, Columbia University and University of North Carolina.

WILLIAM HOWARD JURNEY, *Instructor in Mathematics.*
B.S., in C.E., N. C. State College.

CURRIN GREAVES KEEBLE, *Assistant Professor of English.*

LEROY MONROE KEEVER, *Assistant Professor of Electrical Engineering.*
B.E., M.S., N. C State College.

JOSEPH GRANT KNAPP, *Associate Professor of Agricultural Economics.*
B.Sc., M.A., University of Nebraska; Ph.D., Stanford University.

ROBERT PHILLIPS KOLB, *Assistant Professor of Mechanical Engineering.*
M.E., Rensselaer Polytechnic Institute; M.M.E., Cornell University.

ARTHUR I. LADU, *Associate Professor of English.*
A.B., Syracuse University; M.A., Ph.D., University of North Carolina.

FORREST WESLEY LANCASTER, *Assistant Professor of Physics.*
B.S., Ch.E., Purdue University; and three years of graduate work at Purdue University.

JOEL BREVARD LAWRENCE, *Assistant Freshman Coach.*
B.S., N. C. State College.

MARC C. LEAGER, *Associate Professor of Statistics and Accounting.*
B.S., M.S., University of Minnesota, and a year of graduate work at Columbia University.

FRANK ADOLPH LEE, JR., *Assistant Professor of Mathematics.*
A.B., Randolph-Macon College; M.A., University of Virginia.

HUGH TALMADGE LEFLER, *Professor of History.*
A.B., A.M., Duke University; Ph.D., University of Pennsylvania.

SAMUEL GEORGE LEHMAN, *Professor of Plant Pathology.*
B.S. in Ed., Ohio University; M.S., N. C. State College; Ph.D., Washington University.

HENRY PETERSON LEIGHTON, *Instructor in Military Science and Tactics.*
Sergeant, U. S. Army.

JAMES FULTON LUTZ, *Assistant Professor of Soils.*
B.S., N. C. State College; M.A., University of Missouri.

BRUCE MAGRUDER, *Professor of Military Science and Tactics.*
Lieutenant Colonel, Infantry, U. S. Army; Graduate, Advanced course, Infantry School, Fort Benning, Ga.; Graduate, Command and General Staff School, Fort Leavenworth, Kansas; General Staff Eligibility List; Distinguished Service Medal; French Legion of Honor; Belgian Order of the Crown.

CARROLL LAMB MANN, *Professor of Civil Engineering.*
B.S., C.E., N. C State College; Summer School Cornell University.

ROGER POWELL MARSHALL, *Assistant Professor of English.*
B.A., Wake Forest College; M.A., Columbia University.

WILLIAM LYNDON MAYER, *Professor of Education.*
B.S., Cornell University; M.S., N. C. State College, and a year and a half of graduate work at Cornell University.

Frank Barnard Meacham, *Assistant Professor of Zoology.*
B.S., M.S., N. C. State College.

Jefferson Sullivan Meares, *Assistant Professor of Physics.*
B.S., University of South Carolina; M.S., N. C State College.

Zeno Payne Metcalf, *Director of Instruction, School of Agriculture, and Professor of Zoology.*
A.B., Ohio State University; D.Sc., Harvard University.

John Fletcher Miller, *Professor of Physical Education.*
B.Pd., Central Missouri Teachers' College; B.P.E., Springfield College of Physical Education.

Theodore Bertis Mitchell, *Associate Professor of Zoology.*
B.S., Massachusetts Agricultural College; M.S., N. C. State College; D.Sc., Harvard University.

Harry Lewis Mock, *Assistant Professor of Mathematics.*
A.B., Roanoke College.

Reuben O. Moen, *Professor of Business Administration.*
B.A., M.A., Ph.D., University of Iowa.

Joseph Ernest Moore, *Instructor in Psychology and Sociology.*
B.S., M.S., N. C. State College.

William Flaude Morris, *Assistant Professor of Mechanical Engineering.*
B.S., N. C. State College.

Carey Gardner Mumford, *Assistant Professor of Mathematics.*
B.A., Wake Forest College.

Ralph Elbert Nance, *Assistant Professor of Animal Husbandry.*
B.S., N. C. State College.

*Jean Thomas Nelson, *Instructor in History.*
A.B., Hendrix College; M.A., Chicago University.

Thomas Nelson, *Dean of the Textile School.*
D.Sc., N. C. State College.

James Arlos Ogg, *Instructor in Chemistry.*
B.S., University of Florida and two years of graduate work at University of Florida.

Edwin Hugh Paget, *Associate Professor of English.*
B.L., Northwestern; M.A., University of Pittsburgh; and over a year of graduate work at Northwestern, Wisconsin, and Syracuse universities.

Charles Benjamin Park, *Superintendent of Shops.*

Jehu DeWitt Paulson, *Assistant Professor of Architectural Engineering.*
B.F.A., Yale University.

Robert James Pearsall, *Assistant Professor of Electrical Engineering.*
B.E., N. C. State College, and a year of graduate work at N. C. State College.

Joshua Plummer Pillsbury, *Professor of Horticulture.*
B.S., Pennsylvania State College and a year of graduate work, Harvard University.

Robert Franklin Poole, *Professor of Plant Pathology.*
B.S., Clemson College; M.S., Ph.D., Rutgers University.

Percy Walter Price, *Director of Music.*

Glenn Orvice Randall, *Associate Professor of Horticulture.*
B.S., University of Arkansas; M.S., Iowa State College, and a year of graduate work at the University of Illinois.

Edgar Eugene Randolph, *Professor of Chemical Engineering.*
A.B., A.M., Ph.D., University of North Carolina.

* On leave.

Frank August Reese, *Professor of Physical Education, Assistant Football Coach.*
LL.B., Notre Dame.

Willis Alton Reid, *Instructor in Chemistry.*
B.S., Wake Forest College, and two years graduate work at Johns Hopkins University.

Philip Wallace Ricamore, *Assistant Professor of Military Science and Tactics.*
Captain, Infantry, U. S. Army; B.S., Virginia Polytechnic Institute; Graduate, Advanced Course, Infantry School, Fort Benning, Ga.; Graduate, Army Tank School, Fort Meade, Md.; Graduate, Army Signal School, Fort Monmouth, N. J.

Wallace Carl Riddick, *Dean of the School of Engineering.*
A.B., University of North Carolina; C.E., LL.D., Lehigh University; LL.D., Wake Forest College.

Macon Rogers Rowland, *Instructor in Mechanical Engineering.*
B.S., N. C. State College.

Robert Henry Ruffner, *Professor of Animal Husbandry and Dairying.*
B.S., University of Maryland; M.S., N. C. State College.

Edward Wolfe Rugoles, *Assistant Director of College Extension.*
B.E., M.S., N. C. State College.

George Howard Satterfield, *Associate Professor of Bio-Chemistry.*
A.B., A.M., Trinity College, and two and one-half years of graduate work at Yale, Northwestern, Duke, and Columbia universities.

Howard Ernest Satterfield, *Associate Professor of Mechanical Engineering.*
B.S. in M.E., M.E., Purdue University.

Ira Obed Schaub, *Dean of the School of Agriculture and Director of Agricultural Extension.*
B.S., N. C. State College, and three years of graduate work at Johns Hopkins University.

Raymond Rollins Sermon, *Professor of Physical Education, Director of Athletics.*
B.P.E., Springfield College of Physical Education; B.S., D.O., Kirksville School of Osteopathy; graduate work at the Central Missouri Teachers' College.

Howard Burton Shaw, *Professor of Industrial Engineering.*
A.B., B.C.E., University of North Carolina; A.M., Harvard University, and a year of graduate work at Harvard University.

Merle Franklin Showalter, *Associate Professor of Education.*
A.B., Indiana University; M.S., Purdue University.

Clarence B. Shulenberger, *Associate Professor of Accounting.*
A.B., Roanoke College; A.M., Columbia University.

Ross Edward Shumaker, *Professor of Architectural Engineering.*
B.Arch., Ohio State University.

Ivan Vaughan Detweiler Shunk, *Associate Professor of Botany.*
A.B., A.M., University of West Virginia; Ph.D., Rutgers University.

John Philip Smith, *Professor of Physical Education, Football Coach.*
LL.B., Notre Dame.

Jasper Leonidas Stuckey, *Professor of Geology.*
A.B., A.M., University of North Carolina; Ph.D., Cornell University.

Otis Boyd Taylor, *Assistant Professor of Game Bird Managament.*
B.S., University of Kentucky; and a year of graduate work at N. C. State College.

Horace Carter Thomas, *Instructor in Military Science and Tactics and Military Storekeeper.*
Staff-Sergeant, U. S. Army.

Truman Casper Thorson, *Assistant Professor of Military Science and Tactics.*
Captain, Infantry, U. S. Army; Graduate of the Infantry School, Fort Benning, Ga., and of the Tank School, Fort Meade, Md.

HARRY TUCKER, *Professor of Highway Engineering and Director of the Engineering Experiment Station.*
B.A., B.S., C.E., Washington and Lee University.

FRANK BROWN TURNER, *Instructor in Engineering Drawing.*
B.S., M.S., N. C. State College.

LILLIAN LEE VAUGHAN, *Professor of Mechanical Engineering.*
B.E., N. C. State College; M.E., Columbia University.

BENJAMIN WILSON VENABLE, *Assistant Professor of Military Science and Tactics.*
Captain Infantry, U. S. Army; A.B., Hampden Sidney College; Graduate Infantry School, Fort Benning, Ga.; Graduate Army Command and General Staff School, Fort Leavenworth, Kas., General Staff Eligibility List.

ROBERT S. WARREN, *Associate Professor of Physical Education.*
D.O., American School of Osteopathy.

WILLIAM RANDOLPH WATSON, *Assistant Professor of Military Science and Tactics.*
Captain, Infantry, U. S. Army; A.B., University of North Carolina; Graduate, Infantry School, Fort Benning, Georgia.

DAVID STATHEM WEAVER, *Professor of Agricultural Engineering.*
B.S., Ohio State University; M.S., N. C. State College.

JAMES GRAY WEAVER, *Instructor in Horticulture.*
B.S., M.S., N. C. State College.

BERTRAM WHITTIER WELLS, *Professor of Botany.*
A.B., M.A., Ohio State University; Ph.D., University of Chicago.

FRED BARNETT WHEELER, *Associate Professor of Furniture Manufacturing.*
B.E., M.E., N. C. State College.

JOHN SUMMIE WHITENER, *Associate Professor of Sanitary Engineering.*
B.E., Civil Engineering, N. C. State College.

LARRY ALSTON WHITFORD, *Assistant Professor of Botany.*
B.S., M.S., N. C. State College.

CHARLES BURGESS WILLIAMS, *Professor of Agronomy.*
B.S., M.S., N. C. State College, and a year of graduate work at Johns Hopkins University, and National Graduate School of Agriculture.

HARVEY PAGE WILLIAMS, *Assistant Professor of Mathematics.*
B.A., William and Mary College.

LEON FRANKLIN WILLIAMS, *Professor of Organic Chemistry.*
A.B., A.M., Trinity College; Ph.D., Johns Hopkins University.

NORWOOD WADE WILLIAMS, *Assistant Professor of Poultry.*
B.S., M.S., N. C. State College.

ARTHUR JOHN WILSON, *Professor of Analytical Chemistry.*
B.S., M.S., N. C. State College; Ph.D., Cornell University.

THOMAS LESLIE WILSON, *Assistant Professor of English.*
A.B., Catawba College; A.M., Wofford College.

SANFORD RICHARD WINSTON, *Professor of Sociology.*
B.A., Western Reserve University; Ph.D., University of Minnesota.

RHETT YOUMANS WINTERS, *Director of the Agricultural Experiment Station.*
B.S., Clemson College; M.S., University of Florida; Ph.D., Cornell University.

LOUIS ERNEST WOOTEN, *Associate Professor of Civil Engineering.*
B.E., C.E., M.S., N. C. State College.

WILLARD KENDALL WYNN, *Assistant Professor of English.*
A.B., Wofford College; M.A., Emory University; M.A., Columbia University.

ROBERT EDWARD LEE YATES, *Professor Emeritus of Mathematics.*
A.M., Wake Forest College.

FELLOWS, SCHOLARS, AND STUDENT ASSISTANTS

Allen Josiah Fowler, B.S.....Laboratory Assistant in Chemistry
Clement, Sheldon LeRoy, M.S.....Student Assistant in Agricultural Economics
Clevenger, Clinton B., Ph.D.....N. V. Potash Export My. Fellow
Crafton, William Melvin, B.S., M.S.....Teaching Fellow in Botany
Fornes, Gaston Graham, B.S.....Student Assistant in Mechanical Engineering
Gonzalez, Alfredo, B.S.....Student Assistant in Chemical Engineering
Grimes, George James.....Laboratory Assistant in Ceramic Engineering
Horton, George, B.S., M.S.....Teaching Fellow in Zoology
Hull, Josiah Evans, B.S.....Student Assistant in Agricultural Economics
Kelly, Joseph Wheeler.....Research Fellow in Poultry
Kirk, Richard Carlyle, B.S.....Teaching Fellow in Electrical Engineering
Lay, George Balch, B.S. M.S.....Student Assistant in Zoology
Lewis, John Gary, B.S.....Teaching Fellow in Textiles
Moore, James LeGrande, B.S.....Research Assistant in Dairy
Mott, Thomas A., Jr., B.S.....Teaching Fellow in Textiles
McVey, Daniel Howard, M.S.....Student Assistant in Agricultural Economics
Orr, James Albert, Jr., B.S.....Teaching Fellow in Physics
Paramore, Lee Roy, B.S.....Teaching Fellow in Agricultural Economics
Pierson, Nathaniel Dunn, B.E.....Teaching Fellow in Civil Engineering
Pollock, James Graham, B.S.....Student Assistant in Agronomy
Poole, Edwin Rudolph, B.S.....Student Assistant in English
Slocum, George Kellogg, B.S., M.S.....Teaching Fellow in Forestry
Stevens, William Walter, B.S., M.S.....Teaching Fellow in Geology
Thomas, David Boyd, B.S.....Teaching Fellow in Mathematics
Thompson, John Eugene, Jr., B.S.....Student Assistant in Chemical Engineering
Wallace, Wesley, B.S. .....Teaching Fellow in History
Welden, William Clayton, B.S.....Student Assistant in Agricultural Economics
Wills, George Atkinson, B.Cer.E.....Teaching Fellow in Ceramic Engineering
Wilson, Arthur J., Jr. .....Laboratory Assistant in Chemistry
Yeargan, Sherman A., B.S.....Student Assistant in English

OFFICERS AND STAFF

OF THE

NORTH CAROLINA AGRICULTURAL EXPERIMENT STATION

E. C. Brooks.....President of the College
I. O. Schaub.....Dean of the School of Agriculture
R. Y. Winters.....Director
C. B. Williams.....Vice Director
*F. E. Miller.....Director of Branch Stations
F. H. Jeter.....Agricultural Editor
A. F. Bowen.....Treasurer

AGRONOMY

C. B. Williams.....Agronomist
F. O. Bartel.....Drainage Engineer, in coöperation with U. S. Department of Agriculture
W. A. Davis.....Assistant in Soil Fertility Investigations
E. F. Goldston.....Assistant in Soil Survey
R. C. Jurney.....Assistant in Plant Breeding
P. H. Kime.....Associate in Plant Breeding
H. B. Mann.....Associate in Soil Fertility Investigations
J. H. Moore.....Cotton Technologist
E. G. Moss.....In Charge, Tobacco Investigations for the State Department of Agriculture, and U. S. Department of Agriculture
S. O. Perkins.....Assistant in Soil Survey, in coöperation with U. S. Department of Agriculture
J. R. Piland.....Assistant Chemist
W. H. Rankin.....Assistant in Soil Fertility Investigations
J. M. Snyder.....Soil Technologist in Cooperation with U. S. Department of Agriculture
R. E. Stitt.....Assistant Agronomist, U. S. Department of Agriculture
W. H. Stuart, Jr.....Assistant Agronomist, U. S. Department of Agriculture
L. G. Willis.....Soil Chemist
R. Y. Winters.....Plant Breeder

ANIMAL INDUSTRY

R. H. Ruffner.....Head, Animal Industry
J. E. Foster.....Beef, Cattle and Sheep Investigator
C. D. Grinnells.....Dairy Investigator
J. O. Halverson.....In Charge, Animal Nutrition
E. H. Hostetler.....Beef Cattle, Sheep and Swine Investigator
F. W. Sherwood.....Associate in Animal Nutrition
F. H. Smith.....Assistant in Animal Nutrition

*Workers and Branch Stations under authority of the State Department of Agriculture, coöperating with the Agricultural Experiment Station in research.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. B. Gooding.....Farm Management
C. H. Hamilton.....Associate Rural Sociologist
J. E. Hull.....Farm Management
J. G. Knapp.....Associate Agricultural Economist
R. H. Rogers.....Associate Agricultural Economist
G. R. Smith.....Cotton Marketing

BOTANY

B. W. Wells.....Botanist
S. G. Lehman.....Plant Pathologist
R. F. Poole.....Associate Plant Pathologist

HOME ECONOMICS

Miss Myra deH. Woodruff.....Associate in Home Economics

HORTICULTURE

M. E. Gardner.....Horticulturist
Ivan D. Jones.....Associate Horticulturist
Robert Schmidt.....Associate Horticulturist
C. F. Williams.....Associate Horticulturist

POULTRY HUSBANDRY

R. S. Dearstyne.....Poultry Investigator and Pathologist
R. E. Greaves.....Associate Investigator and Pathologist

ZOOLOGY AND ENTOMOLOGY

Z. P. Metcalf.....Entomologist
B. B. Fulton.....Research Entomologist
Miss Caroline E. Tucker.....Laboratory Assistant

CENTRAL STATION—RALEIGH

F. E. Miller.....Director of Branch Stations
R. J. Harris.....Assistant Director in Charge

*BRANCH STATIONS

Blackland Test Farm—Wenona

J. L. Rea,, Jr.....Assistant Director in Charge
A. P. Lefevers.....Herdsman
Bryan Harris.....Foreman

*Workers and Branch Stations under authority of the State Department of Agriculture, coöperating with the Agricultural Experiment Station in research.

Coastal Plain Test Farm—Willard

CHAS. DEARING.....Assistant Director in Charge
T. H. CAMERON.....Dairy Herdsman
C. O. BOLLINGER.....Poultryman
D. P. SOUTHERLAND.....Foreman
W. H. STUART, JR.....Assistant Agronomist, U. S. Department of Agriculture

Mountain Test Farm—Swannanoa

S. C. CLAPP.....Assistant Director in Charge
H. B. COULTER.....Dairy Herdsman
G. K. JONES.....Poultryman
W. H. WHISENHUNT.....Foreman

Piedmont Test Farm—Statesville

J. W. HENDRICKS.....Assistant Director in Charge
R. E. STITT.....Assistant Agronomist, U. S. Department of Agriculture

Tobacco Test Farm—Oxford

E. G. MOSS.....Assistant Director in Charge
JAS. BULLOCK.....Assistant Tobacco Investigations, U. S. Department of Agriculture
A. B. DEAN.....Foreman

Upper Coastal Plain Test Farm—Rocky Mount

R. E. CURRIN, JR.....Assistant Director in Charge
WM. ALLSBROOK.....Herdsman
J. P. YOUNG.....Assistant Tobacco Investigations, U. S. Department of Agriculture

NORTH CAROLINA AGRICULTURAL AND HOME ECONOMICS EXTENSION OFFICERS AND SPECIALISTS

E. C. Brooks.....President of the College
I. O. Schaub.....Director
C. A. Sheffield.....Assistant to Director
Mrs. Jane S. McKimmon.....Assistant Director
C. R. Hudson.....State Agent, Negro Work
A. F. Bowen.....Treasurer
H. C. Evans.....Auditor
F. H. Jeter.....Agricultural Editor

AGRONOMY

E. C. Blair.....Extension Agronomist
E. Y. Floyd.....Extension Agronomist in Tobacco Culture

ANIMAL HUSBANDRY

J. A. Arey.....In Charge of Office of Dairy Extension
F. R. Farnham.....Dairy Extension
A. C. Kimrey.....Assistant in Dairy Extension
W. L. Clevenger.....Dairy Extension
C. F. Parrish.....In charge of Office of Poultry Extension
C. J. Maupin.....Assistant in Poultry Extension
L. I. Case.....Extension Specialist in Beef, Cattle and Sheep

ENTOMOLOGY

C. H. Brannon.....Assistant Extension Entomologist
C. L. Sams.....Specialist in Beekeeping

HORTICULTURE

E. B. Morrow.....Extension Horticulturist
H. R. Niswonger.....Extension Horticulturist

MISCELLANEOUS

R. W. Graeber.....Extension Forester
L. R. Harrill.....State Club Leader
J. F. Criswell.....Farm Management Specialist
J. W. Johansen.....Extension Economist for Organization and Credit

FARM DEMONSTRATION WORK

DISTRICT AGENTS

J. W. Goodman, Jr. Southwestern District ..... Raleigh, N. C.
O. F. McCrary, Northwestern District ..... Raleigh, N. C.
E. W. Gaither, Southeastern District ..... Raleigh, N. C.
B. Troy Ferguson, Northeastern District ..... Raleigh, N. C.

COUNTY AGENTS

County	*Name*	*Postoffice*
Alamance	N. C. Shiver	Graham
	N. B. Nicholson (assistant)	Graham
Alexander	D. H. Osborne	Taylorsville
Alleghany	W. B. Collins	Sparta
Anson	J. W. Cameron	Polkton
Ashe		
Avery	C. B. Baird	Newland
Beaufort		Washington
Bertie	B. E. Grant	Windsor
Bladen	J. R. Powell	Elizabethtown
Brunswick	J. E. Dodson	Supply
Buncombe	L. D. Thrash	Asheville
Burke	R. L. Sloan	Morganton
Cabarrus	R. D. Goodman	Concord
Caldwell	D. H. Sutton	Lenoir
Camden		
Carteret	Hugh Overstreet	Beaufort
Caswell	H. L. Seagrove	Yanceyville
Catawba	T. L. Robinson	Newton
	J. S. Wilkins (assistant)	Hickory
Chatham	H. M. Singletary	Pittsboro
Cherokee	R. W. Gray	Murphy
Chowan	N. K. Rowell	Edenton
Clay	E. D. Bowditch	Hayesville
Cleveland	R. W. Shoffner	Shelby
Columbus	J. P. Quinerly	Whiteville
Cumberland	N. B. Stevens	Fayetteville
Craven	H. A. Patten	New Bern
Currituck	T. B. Elliott	Currituck
Dare		Mantec
Davidson	P. M. Hendricks	Lexington
Davie		
Duplin	L. L. McLendon	Kenansville
Durham	W. I. Smith	Durham
Edgecombe	H. W. Taylor	Tarboro
Forsyth	R. W. Pou	Winston-Salem
Franklin		
Gaston	L. B. Altman	Gastonia

County	*Name*	*Postoffice*
Gates		
Graham		
Granville	Dan M. Paul	Oxford
Greene		
Guilford	J. I. Wagoner	Greensboro
Halifax	J. B. Britt	Scotland Neck
Halifax	W. O. Davis	Weldon
Harnett	J. O. Anthony	Lillington
Haywood		Waynesville
Henderson	O. B. Jones	Hendersonville
Hertford		
Hoke	S. C. Oliver, Jr.	Raeford
Hyde		
Iredell	A. R. Morrow	Statesville
Jackson	E. V. Vestal	Sylva
Johnston	J. B. Slack	Smithfield
Jones	J. T. Monroe	Trenton
Lee	E. O. McMahan	Sanford
Lenoir	C. M. Brickhouse	Kinston
Lincoln	J. G. Morrison	Lincolnton
McDowell	J. Gordon Blake, Jr.	Marion
Macon	F. S. Sloan	Franklin
Madison	Earle Brintnall	Marshall
Martin	T. B. Brandon	Williamston
Mecklenburg	Kope Elias	Charlotte
Mitchell	S. J. Kirby	Spruce Pine
Montgomery	O. R. Carrithers	Troy
Moore	E. H. Garrison, Jr.	Carthage
Nash	H. G. Wharton	Nashville
New Hanover	J. P. Herring	Wilmington
Northampton	E. P. Gulledge	Jackson
Onslow	N. M. Smith	Jacksonville
Orange	D. S. Matheson	Hillsboro
Pamlico	W. D. Burton	Bayboro
Pasquotank	G. W. Falls	Elizabeth City
Pender	W. H. Robbins	Burgaw
Perquimans		
Person	H. K. Sanders	Roxboro
Pitt	E. F. Arnold	Greenville
Polk	J. W. Artz	Columbus
Randolph	Ewing S. Millsaps	Asheboro
Richmond	A. D. Robertson	Rockingham
Robeson	O. O. Dukes	Lumberton
Rockingham	F. S. Walker	Reidsville
Rowan	W. G. Yeager	Salisbury
Rutherford	F. E. Patton	Rutherfordton
Sampson		
Scotland	W. B. Pace	Laurinburg

County	*Name*	*Postoffice*
Stanly	O. H. Phillips	Albemarle
	G. R. Lackey (assistant)	
Stokes		
Surry	J. W. Crawford	Elkin
Swain		
Transylvania		
Tyrrell	W. V. Hays	Columbia
Union	T. J. W. Broome	Monroe
Vance	J. W. Sanders	Henderson
Wake	J. C. Anderson	Raleigh
Warren		
Washington	R. E. Dunning	Plymouth
Watauga		
Wayne		Goldsboro
Wilkes	A. G. Hendren	Wilkesboro
Wilkes	Joe Ellis, Jr. (assistant)	Wilkesboro
Wilson	W. L. Adams	Wilson
Yadkin	L. F. Brumfield	Yadkinville
Yancey	S. J. Kirby	Spruce Pine

NEGRO DEMONSTRATION WORK

C. R. Hudson, State Agent, Raleigh, N. C.

J. W. Mitchell, District Agent, A. and T. College, Greensboro, N. C.

Local Agents

S. T. Brooks, Lumberton	Robeson County
E. F. Colson, Elizabeth City	Pasquotank County
J. A. Colson ,Ansonville	Anson County
D. D. Dupree, Greenville	Pitt County
T. A. Hamme, Durham	Durham County
W. B. Harrison, Greensboro	Guilford County
S. D. McRae, Edenton	Chowan and Perquimans Counties
J. C. Hubbard, Windsor	Bertie County
J. W. Jeffries, Mebane	Alamance County
R. J. Johnson, Kinston	Lenoir County
E. C. Lackey, Statesville	Iredell County
MacKay McNeill, Smithfield	Johnston County
C. S. Mitchell, Gatesville	Gates County
L. H. Roberts, Raleigh	Wake County
I. D. L. Torrence, Charlotte	Mecklenburg County
Oliver Carter, Parmele	Martin County
H. C. Jones, Winston-Salem	Forsyth County

NORTH CAROLINA HOME DEMONSTRATION WORK

Mrs. Jane S. McKimmon, Assistant Director of Extension.....Raleigh
Mrs. Estelle T. Smith, Southeastern District Agent.....Raleigh
Mrs. Cornelia C. Morris, Northwestern District Agent.....Raleigh
Miss Pauline Smith, Northeastern District Agent.....Raleigh
Miss Ruth Current, Southwestern District Agent.....Raleigh
Miss Helen Estabrook, House Furnishings and Home Management Specialist
Raleigh
Miss Mary E. Thomas, *State Nutrition Specialist*.....Raleigh
Miss Willie N. Hunter, Clothing Specialist.....Raleigh
Miss Emma Young, Secretary.....Raleigh
Miss Eleanor Mason, State College Station.....Raleigh
Miss Elizabeth Seawell, State College Station.....Raleigh

COUNTY AGENTS

County	*Name*	*Postoffice*
Alamance	Miss Anamerle Arant	Graham
Anson	Mrs. Rosalind Redfearn	Wadesboro
Beaufort	Miss Violet Alexander	Washington
Bladen	Mrs. Lillie L. Hester	Elizabethtown
Brunswick	Mrs. Ada Walker Foster	Southport
Buncombe	Miss Myrtie Keller	Asheville
Cabarrus	Miss Ruth Payne	Concord
Caldwell	Miss Mattie Lee Cooley	Lenoir
Carteret	Miss Ann Mason	Beaufort
Catawba	Mrs. Marie Coxe Matheson	Newton
Chowan	Miss Nell Caldwell	Edenton
Columbus	Miss Lois Rainwater	Whiteville
Craven		New Bern
Cumberland	Miss Elizabeth Gainey	Fayetteville
Currituck	Miss Virginia Edwards	Currituck
Dare	Miss Alice Carter	Manteo
Duplin	Mrs. Pratt Covington McSwain	Kenansville
Durham	Miss Rose Elwood Bryan	Durham
Edgecombe	Miss Katherine Millsaps	Tarboro
Forsyth	Mrs. Elizabeth Tuttle	Winston-Salem
Franklin	Miss Anne Benson Priest	Louisburg
Gaston	Miss Margaret J. Cobb	
Guilford	Miss Addie Houston	Greensboro
Halifax	Mrs. Hazel Ervin Wheeler	Roanoke Rapids
Hertford	Mrs. Grace Pope Brown	Winton
Iredell	Miss Virginia Sloan	Statesville
Johnston	Miss Rachel Everett	Smithfield
Jones	Mrs. Alma Clay Morgan	Trenton
Lee	Miss Cornelia Simpson	Sanford
Madison	Miss Frances Crafton	Marshall
Martin	Miss Lora Sleeper	Williamston

County	*Name*	*Postoffice*
Mecklenburg	Miss Delano Wilson	Charlotte
Moore	Mrs. Walter Ryals	Carthage
Nash	Mrs. Effie V. Gordon	Nashville
New Hanover	Miss Elizabeth Ragin	Wilmington
Northampton	Miss Daisey Caldwell	Jackson
Onslow	Miss Sallie Brooks	Jacksonville
Pamlico	Miss Julia McIver	Oriental
Pasquotank	Miss Maude L. Hodges	Elizabeth City
Pender	Miss Hazel Swinson	Burgaw
Pitt	Miss Ethel Nice	Greenville
Polk	Miss Florence Cox	Columbus
Richmond	Mrs. Anna Lea Harris	Rockingham
Robeson	Miss Hallie Prather	Lumberton
Rockingham	Miss Marjorie Holmes	Reidsville
Rowan	Miss Mamie Whisnant	Salisbury
Sampson	Miss Minnie L. Garrison	Clinton
Stanly	Miss Elizabeth Bridge	Albemarle
Tyrrell	Miss Georgia Piland	Columbia
Vance	Mrs. Hattie F. Plummer	Middleburg
Wake	Mrs. Maude McInnes	Raleigh
Washington	Miss Eugenia Patterson	Plymouth

NEGRO HOME DEMONSTRATION WORK

District Agent, Mrs. Dazelle Foster Lowe, Greensboro, N. C.

Alamance	Mrs. Carrie Spaulding Wilson	Graham
Buncombe	Miss Mattie Mae Hill	Asheville
Columbus	Mrs. Sarah Williams	Whiteville
Guilford	Miss Annie Murray	Greensboro
Mecklenburg	Miss Wilhemina Laws	Charlotte
Robeson	Mrs. Lillian M. Debnam	Lumberton
Wake	Mrs. Bertha Maye Edwards	Raleigh
Wayne	Miss Emma McDougald	Goldsboro

GENERAL INFORMATION

HISTORY

The North Carolina State College of Agriculture and Engineering is the outgrowth of an idea fostered by two distinct movements, each somewhat different in its original aims. One movement, represented by a group of progressive young North Carolinians, banded together in Raleigh as the Watauga Club, sought to bring about the organization of an industrial school for the teaching of "wood-work, mining, metallurgy, and practical agriculture." The other movement, originating among the farmers in North Carolina, and actively sponsored by Colonel L. L. Polk, then editor of the *Progressive Farmer,* had as its object the establishment of an agricultural college supported by State appropriations and by the Land Scrip Fund of the Federal Government.

Through the efforts of the Watauga Club, the Legislature of 1885 passed a bill, introduced by Mr. Augustus Leazar, the main features of which provided:

1. "That the Board of Agriculture should seek proposals of donations from the cities and towns of North Carolina, and when an adequate donation should be made by any city or town, there the school should be located, giving the place the preference which offered the greatest inducements."

2. "That the school should be under joint control of the Board of Agriculture and directors from such town or city."

3. "That instruction should be in woodwork, mining, metallurgy, practical agriculture, and such other branches of industrial education as may be deemed expedient."

4. "That the Board of Agriculture should be authorized to apply annually $5,000 of the surplus funds of their department to the establishment and maintenance of said school."

Pursuant to the act of the General Assembly, when proposals for the scohol were advertised, Charlotte responded with the offer of an eligible site and $5,000 in cash; Kinston offered $10,000; Raleigh offered $5,000 (increased subsequently to $8,000), the Exposition Building at the State Fair Grounds, valued at $3,000; one acre of land, donated by Mr. William Stronach, and the use of twenty acres of land by the Directors of the State Fair.

The location of the College in Raleigh was brought about largely through the efforts of the Industrial School Committee of the City Board of Aldermen. Members of this committee were Messrs. G. E. Leach, F. O. Moring, and J. Stanhope Wynne.

In April, 1886, the committee appeared before the Board of Agriculture and, on behalf of the city of Raleigh, increased the original offer of $5,000 to $8,000. The offer was accepted, and negotiations were pending for letting the contract to build when certain events occurred that changed the whole story of the institution.

Farmers' clubs through North Carolina, and Colonel L. L. Polk, through the columns of the *Progressive Farmer,* had, for some years, advocated the establishment of an agricultural college which would be supported, in part, by the Federal Land Scrip Fund. On the 18th of January, 1887, a mass meeting of the farmers,

held in Raleigh, passed a resolution to the effect that the farmers needed an agricultural college, and "that the Land Scrip Fund be diverted from the University and applied thereto."

On January 18th the following resolution was adopted by the Raleigh Board of Aldermen:

"Inasmuch as the farmers' meeting, recently held in this city, composed of worthy citizens of many counties of the State, resolved to request the General Assembly to establish an Agricultural College, and as there exists a popular impression that the proposed institution will receive the sanction of the Legislature, and as the City of Raleigh has agreed to give the sum of $8,000 in money, together with the building of the State Exposition, and by consent of the directors of the State Fair the use of about 20 acres of land for the establishment of an Industrial School and an experiment farm; and further, that inasmuch as Mr. R. Stanhope Pullen, a citizen of Raleigh, has, through our committee, offered to the Board of Agriculture, whose duty it has become under a statute of the State to appropriate the sum of five thousand dollars annually for the establishment and maintenance of an Industrial School, $8\frac{2}{3}$ acres of valuable land conveniently located for the said school; and finally, as the board believes there exists no good reason why the two enterprises should not be united, it is therefore *Resolved,* that the Board of Aldermen of the City of Raleigh, in view of the foregoing facts, and in order to meet the views of the most important class of our citizens, the farmers, has agreed that should the Legislature conclude to establish an Agricultural College that it would, in their opinion, be the part of wisdom, to accomplish the greatest good to all of our citizens, to unite the Agricultural and Industrial Schools; that should such a course be adopted, they recommend that the combined institution be called the College of Agriculture and Mechanic Arts of North Carolina.

"That should the said institution be established at or adjacent to Raleigh, on land which will be donated for this purpose, that the City of Raleigh will agree that the grants or offers heretofore made to and accepted by the Board of Agriculture shall be applied, with the consent of the said board, to such College of Agriculture and Mechanic Arts of North Carolina.

"It is further Resolved, that these resolutions and preamble shall be laid before the General Farmers' Convention, to be held in this city on the 26th inst., for their consideration, and also before the appropriate committee of the General Assembly for their action thereupon.

"The Board of Aldermen learns and states with pleasure, by authority, that R. S. Pullen, who has heretofore offered the Board of Agriculture a tract of land of about 9 acres, which tender meets the approval of the said Board of Agriculture, as the land lies conveniently near the State Experiment Farm, will, in case the above named Agricultural and Mechanical College be established in the same, donate about 60 acres of land, to include the 9 acres and connected therewith, to the State of North Carolina for the purpose of said College.

"The Board of Aldermen would, therefore, include this generous offer as a part of the grants heretofore tendered, should the combined institution be established with the support of the State of North Carolina.

"The Board of Aldermen would respectfully state that it will meet their approval for the management of the proposed institution to be directed as the

wisdom of the General Assembly may determine, and that the City of Raleigh does not insist that any part of the management of the same shall be put under its control."

Two days later, January 26, 1887, another great mass meeting of farmers and working men, called together in Raleigh by Colonel Polk from forty counties, passed the following resolutions:

1. "That the time has come to establish an Agricultural and Mechanical College in accordance with the Land Scrip Act.

2. "That the interest from the Land Scrip Fund should be paid to the College.

3. "That a sufficient amount from the general treasury be appropriated and available convict labor be used to build, equip, and maintain the College.

4. "That the surplus funds of the Agricultural Department be utilized in this connection.

5. "That the payment of the Land Scrip Fund to the College should not diminish the appropriations to the University.

6. "That the fund and property of the Industrial School, including donations of the City of Raleigh, in accordance with a resolution of its Board of Aldermen, be turned over to the proposed college."

The above resolutions were incorporated in a bill which passed its final reading before the General Assembly on March 3, 1887, and the new institution was established as the "North Carolina College of Agriculture and Mechanic Arts."

The dividing line between Pullen Park, the tract of land given to the City of Raleigh, by Mr. R. Stanhope Pullen, and the sixty acres donated to the College by the same gentleman, together with the original walks and driveways, were located in this manner: Mr. Pullen walked ahead of a plow, held by a small negro boy, and Mr. J. Stanhope Wynne led the mule over the lines indicated by Mr. Pullen.

The cornerstone of Holladay Hall was laid on August 22, 1888, the address being made by Mr. W. J. Peele, of Raleigh, one of the charter members of the Watauga Club and a staunch supporter of industrial education.

The College opened October 3, 1889, with seventy-two students and a teaching and administrative staff of eight. Alexander Q. Holladay was the first president, 1889-1899; followed by George Taylor Winston, 1899-1908; Daniel Harvey Hill, 1908-1916; Wallace Carl Riddick, 1916-1923; Eugene Clyde Brooks, 1923—.

The General Assembly of 1917 changed the name of the College to The North Carolina State College of Agriculture and Engineering.

ORGANIZATION

The College is divided into five closely related schools: (1) The School of Agriculture, (2) The School of Education, (3) The School of Engineering, (4) The School of Science and Business, (5) The Textile School, and The Graduate School. In each of the undergraduate schools are the departments which furnish the courses of instruction. The courses offered in each are grouped according to definite vocational aims, and students entering will be directed first to elect a vocation. This selection determines the program of studies to be pursued.

There are thirty-six major vocations open to young men in the State, for which State College offers from four to seven years training for technical, scientific, and professional service. Thirty years ago these vocations, when filled at all, were filled for the most part by unskilled workers. But the world has moved rapidly during this period of thirty years. Many new discoveries and inventions have been made, and many new social combinations have been effected, requiring a better understanding of human relationships and the need of business and social coöperation. As a result, there has developed a great body of technical and professional knowledge derived from new experiences, and leaders in these larger vocations must not only become masters of the essential technical and professional knowledge, but have a clearer understanding of the human relationships demanded in this age, because of the rapidly increasing tendency of human elements to coöperate in large organizations.

These vocations are classed today among the learned professions, and those who would become successful leaders must secure that broader cultural training which will equip them to participate properly in the civic affairs of their communities, because these vocations are having such a tremendous effect upon the civic life of our State and Nation.

LOCATION

The North Carolina State College is located within the limits of the city of Raleigh, a mile and a quarter west of the State Capitol. Of the four hundred and eighty-six acres of land owned by the College, thirty acres are in the campus, thirty-five in orchards and gardens, fifteen in the poultry yards, and the remainder in the experiment farm.

Varieties of possibilities in agriculture and engineering are found here or within easy reach. The workings of the State Government in all its functions, departments, and institutions can be observed at close range by the students of the College. Few colleges combine in equal degree the opportunities of the country and the advantages of a city as does State College.

BUILDINGS

Holladay Hall contains the executive offices of the President, the Registrar, the Treasurer, the Comptroller, the Dean of Students, and the offices and classrooms of the School of Education, and of the Reserve Officers Training Corps.

Peele Hall is a new three-story building. It contains offices and classrooms of the School of Science and Business and of the Graduate School.

Primrose Hall has been remodeled for the use of the Department of Geology. It contains offices, classrooms, and laboratories.

Tompkins Hall is occupied exclusively by the Textile School for instruction and research. The building is equipped with a large variety of machinery and apparatus to be used in research and in teaching the latest processes of textile manufacturing and textile chemistry and dyeing.

Winston Hall contains the offices, classrooms, and laboratories for the departments of Chemistry and Chemical Engineering.

Page Hall houses the department of Mechanical Engineering. It contains offices, draughting rooms, aeronautics laboratory, and classrooms for Mechanical Engineering, and the offices of the Dean of Engineering. It also contains classrooms for Mathematics.

Shops Building. The Shops Building is located south of Page Hall and contains the wood, foundry, forge, and machine shops, and the Mechanical Engineering Instrument Rooms and Laboratory.

Ricks Hall provides offices for the Coöperative Agricultural Extension Service, the Dean of Agriculture and Director of the Agricultural Experiment Station, the Department of Agricultural Economics, Department of Forestry and Poultry Department, together with classrooms and laboratories.

Patterson Hall is occupied by the departments of Agronomy and Botany.

The Zoology Building contains offices for the Director of Instruction of the School of Agriculture, and classrooms and laboratories for the Department of Zoology, and has a modern insectary.

The Ceramics Building contains classrooms, offices, a large machine laboratory with full-size equipment, a large kiln laboratory, and seven small laboratories for special equipment for instruction and research.

Polk Hall contains classrooms, offices, laboratories, and equipment for instruction and research in animal industry and in dairy manufacturing. It provides the classrooms, museum, and laboratories in instruction and research in Horticulture and Landscape Architecture.

The Electrical Engineerng-Physics Building provides modern facilities for Electrical and Architectural Engineering and Physics. It contains classrooms, drawing rooms, offices, and laboratories, designed for instruction and research in these fields.

The Civil Engineering Building houses the departments of Civil and Highway Engineering, including Construction and Sanitary Engineering, and the Engineering Experiment Station.

The first floor is occupied on the south end by the Engineering Experiment Station, consisting of the offices of the Director, laboratories, and museum, and the office of the N. C. Board of Registration for Engineers and Land Surveyors. The north end contains the highway laboratory and computation rooms, with modern equipment and apparatus for this division.

The east side provides for department shops and surveying instruments. On the second floor are the offices and classrooms, two large drawing rooms, a general assembly room, permanent record rooms, and blue-print room.

The D. H. Hill Library, completed in 1926, is a structure of recognized architectural beauty, designed in the post-colonial of the Jeffersonian period, the style of Monticello and of the buildings of the University of Virginia. It consists of a large portico of Georgia marble columns and the usual Colonial type of brick. It is simple and dignified in its treatment.

The library contains a large reading room to the rear of the foyer which, with the periodical room, provides a quiet place for study. Under the reading room is the stack room, which extends the entire length of the building.

The collection consists of the volumes transferred from the old library building, together with the various departmental libraries that have been added to the main collection during the past year. In addition, many volumes have been added to the collection during the year through purchases and donations.

Pullen Hall, the College Auditorium, has a seating capacity of 1,000. The space on the lower floors contains classrooms and offices used by the department of English.

The Dining Hall consists of two wings, each 133 by 54 feet, connected by a large, well-equipped kitchen and serving pantry. In the basement there is a bakery, a cold storage plant, ample storerooms, the Students Supply Store, and the College Laundry. In the dining-rooms there are accommodations for 1,600 students. There is operated in this building a modern cafeteria, supplying to those students who do not care to avail themselves of the regular dining service a place to secure meals at moderate cost. The equipment throughout is of the latest type.

The Infirmary, a two-story brick building with wards, single rooms, diet kitchen and offices, is well equipped to care for student patients.

The Frank Thompson Gymnasium, opened for use in 1924, is one of the largest and best-equipped gymnasiums in the South. The gymnasium proper has a playing floor 110 x 130 feet, large enough to accommodate three full-size basketball courts. About 2,500 spectators can be seated at indoor contests. In addition, there is an auxiliary gymnasium which is used for recreation by the students and faculty members and by the smaller classes in physical training. The swimming pool, 75 x 35 feet, handsomely tiled, is located under its own glass roof, but is connected with the basement proper, which contains ample showers, lockers, storerooms, varsity training rooms, and rooms for visiting athletic teams. Classrooms and offices are on the first floor.

The Young Men's Christian Association Building is the home of the greater part of voluntary student activities. The main floor has a large lobby, with open reading and game rooms, an auditorium, a banquet hall, several bedrooms for visitors, and offices of the association and of the College publications. The upper floor contains two large society halls and rooms for Bible study classes.

The Central Heating Plant furnishes light, heat, and power to all the buildings. The plant and its equipment are of modern type, and so arranged as to be used for instruction.

Barns, Greenhouses, and Poultry Plants. In addition, there are a number of service buildings for the different departments of the College. The College barns house the dairy herd, the work animals, and the sheep and swine herds. There are six greenhouses on the campus operated in conjunction with the instruction and research in horticulture, zoology, and botany. A poultry plant is provided, with ample buildings including an incubator and feed house, judging laboratory, and a fattening and storage house. Breeding houses for special matings and experimental work and four large houses in which the four special strains of S. C. Rhode Island Red, White Wyandotte, S. C. White Leghorn, and Barred Plymouth Rock are bred.

THE DORMITORIES

The College has sufficient dormitory space to house comfortably a thousand students. The dormitories are operated under the direction of the Superintendent of Buildings.

First Dormitory, a small two-story brick building, housing 18 students, was one of the first College buildings erected.

Fourth Dormitory contains rooms with hot and cold running water, and new bathrooms, conveniently located, have been installed. The building is three stories in height and accommodates 46 students.

Fifth and Sixth Dormitories, each three stories in height, provide quarters, together, for 144 students. Bathrooms are located on each floor, and both buildings are of fireproof construction.

Seventh Dormitory is three stories high and has one hundred rooms, and will accommodate 200 students. Each room has running water, and tiled bathrooms are located in each section on each floor. The building is of fireproof construction.

South Dormitory is four stories in height and accommodates 228 students. There is a tiled bathroom in each section.

1911 Dormitory has three stories and houses 240 students. Its remodeling was completed in the summer of 1930.

Watauga Hall has 54 rooms, is three stories high, and accommodates 108 students. Tiled baths are installed, and with its central location it is now one of the most desirable college homes on the campus.

LABORATORIES, SHOPS, AND FACILITIES

Aeronautical Engineering

The Aeronautics laboratories are located in the basement of Page Hall. These laboratories are equipped with different types of airplane engines, instruments, airplanes, airplane parts and an open type thirty-inch wind tunnel. A number of models are available for use in connection with the wind tunnel. There is equipment for research work by graduate students.

Agricultural Economics and Rural Sociology

The Department of Agricultural Economics and Rural Sociology is supplied with modern laboratory facilities. The department has at its disposal several large well-lighted rooms for offices, classrooms, and laboratories. By special arrangement with one of the large calculating manufacturing companies, the supply of calculators is adjusted to the need for them. In addition the department is supplied with adding machines and other calculating devices, including an 80-column Hollerith tabulating and sorting machine. Charts on practically every phase of agricultural economics are in the possession of the department or are available to it through the courtesy of the United States Department of Agriculture. A large number of maps of farms located in various parts of the State are also available for study and to use for purpose

of illustration of principles and practices. For the study of farm management and farm organization, the department has collected during the past five years, detailed records on approximately one hundred farms. An up-to-date file of bulletins is maintained for reference covering all phases of agricultural economics and rural sociology.

In reality, the State is a laboratory of the department. The department is constantly making studies in economics of production, marketing, finance, taxation, and prices, as well as studies in such rural social problems as rural population, rural organization, family living, and community life. All of these studies furnish material for the student, and also for the instructor in preparing and developing the courses of instruction. It is significant to note that much of this work is done in cooperation with the United States Department of Agricultural Economics. This arrangement brings the student in contact with officials in the department, and also supplements the department's personnel.

Agronomy

Field Crops.—The equipment for teaching Field Crops consists of standard apparatus and official types for the study and determination of the market grades of cotton, tobacco, corn, small grains, and forage crops. Other equipment consists of a specimen garden located on the College farm; specimens of cultivated varieties of field crops and their seeds.

Soils.—The soils laboratories are equipped with the facilities for instruction in general and advanced work in soil management, soil fertility, fertilizers, and in soil classification and surveying. Samples of most of the North Carolina soil types as well as many samples from other states are available for study. The information on the classification, distribution, composition, crop adaptation, and fertilizer requirements of North Carolina soils which has been accumulated by the Experiment Station affords valuable material for student use. Facilities for field and laboratory work on the physical and chemical properties, classification, and fertility of North Carolina soils are unusually good.

Agricultural Engineering.—The laboratories for Agricultural Engineering are equipped with modern labor-saving tillage, planting, cultivating, and harvesting machines adapted to the types of farming practiced in the State. Various types of home water systems, electric lighting plants, farm gas engines, tractors, and farm building models are on display and are being used in laboratory instruction.

Animal Husbandry

The space devoted to Animal Husbandry is equipped to instruct students in the profitable types of farm animals, how to handle them so as to get the best returns, how to select breeding stock, and how to feed all classes of farm animals. The students in this department feed and prepare animals for the block, actually doing the slaughtering, and cutting the meat to be sold in a market which is conducted by the students.

The dairy barns contain more than seventy registered cattle representing four breeds. In many ways the herd of dairy cattle owned by this institution is one of the best to be found. A sufficient number of swine are kept to give the students practice in every phase of the industry. The same is true of horses, sheep, and beef cattle.

The dairy is especially well equipped with modern machinery to give instruction in the testing of milk and its products, creamery buttermaking, ice cream making, and in the handling of market milk. There is adequate refrigerating equipment for cold storage of meats as well as dairy products.

Architectural Engineering

For instruction in Architectural Engineering there are provided: a working library of books, measured drawings and plates for reference and research, and a large collection of lantern slides to supplement the lectures on historical architecture. Freehand drawing and rendering are taught with the aid of casts and models provided for this purpose.

The department has taken over the entire top floor of the Electrical Engineering-Physics Building. This provides three commodious drafting rooms, a studio and freehand drawing rooms, a large and well fitted lecture and stereopticon room, and an adequately equipped photographic laboratory.

Botany

Well-lighted laboratories are available, equipped with tapering tables for microscopic work. The bacteriology rooms are supplied with the necessary autoclaves, ovens, and incubator space. The plant physiology laboratory has a greenhouse adjoining it, which is equipped with tables for experimentation in addition to the regular benches. An additional greenhouse is available for plant disease research. The necessary herbaria have been developed to adequately support the various botanical courses. A botanical library is open for student use.

Ceramic Engineering

The Ceramic Engineering laboratory was opened for use during the session of 1925-26, and is one of the few in which full-size clay-working equipment is used. The student will, therefore, have the advantage of doing his laboratory work under practical conditions. As research work on North Carolina raw materials will be carried on in the laboratory during the next few years, this will be an additional advantage to the student.

Plants are provided for the manufacture of structural clay products, for pottery, and for the making of glasses and enamels. The apparatus comprises a roll crusher, jaw crusher, dry and wet pan, pug mill, gyratory screen, brick and hollow tile machine, cutting table, dry press, blunger, filter press, and accessories. The kiln and dryer equipment includes a closet dryer, large gas-fired kiln, a gas-fired muffle kiln for pottery, and a high temperature furnace.

The testing laboratory is equipped with Ro-Tap screens, balances, briquette machine, microscope, volumeters, and electric oven.

Chemical Engineering

The laboratories of the department of Chemical Engineering occupy almost all of the basement rooms of Winston Hall. The available space has been divided into an exhibit room; Water and Engineering Materials Laboratory; Electrochemical Processes room; Fuel and Gas Technology room; Vegetable Oil and Hydrogenation laboratory; Experimental Rayon plant; Destructive

Distillation installation; dark room for metallographic and microphotographic study; the Graduate Research laboratory; and Unit Processes laboratory.

The Chemical Engineering laboratories have suitable equipment, much of it specially designed, for the study of the main processes and plant problems of the chemical engineering industries. They are supplied with direct and alternating current, gas, water, steam, compressed air, electric motors, generators, and storage batteries. They are equipped with precision and control instruments, such as refractometer, surface tension apparatus, polariscope, potentiometer, microscope, ultra-microscope, colorimeter, calorimeters, tint-photometer, thermocouples, and optical pyrometer. They are equipped also with filter presses, centrifuges, crushers, grinders, and pulverizers, vacuum pan, stills, autoclave, jacketed kettle, gas, water, and electrical meters. Installations at the College are used to study such chemical engineering problems as humidifying, refrigeration, and combustion. An experimental refinery and hydrogenation plant for vegetable and other oils has been installed. A complete permutit water-softening equipment forms a unit of an experimental water purification and treatment system. In addition, the industrial plants of the city offer opportunity for study of plant operation and problems.

There has been recently added to the department of Chemical Engineering a valuable exhibit room, where products of many of the Chemical Engineering industries are exhibited. These exhibits are used for instructional purposes and serve to give the student very valuable training. These exhibits are arranged in the form of flow sheets showing the various steps in manufacturing processes.

Chemistry

The Department of Chemistry occupies Winston Hall. There are laboratories for Inorganic, Organic, Physical, Qualitative and Quantitative Analysis, and research. All these laboratories are supplied with the necessary apparatus, chemicals, and suction hoods, and all have convenient gas, water, and electric connection.

The Chemical Library is well supplied with reference books and chemical journals.

The Chemical Museum contains specimens of the more common minerals, ores, and chemicals, together with many industrial, chemical and allied products.

There is special equipment for research work by graduate students.

Civil Engineering

The Department of Civil Engineering is located in the new Civil Engineering Building. This building is newly furnished with facilities for taking care of the work; classrooms, laboratories, drawing rooms, and offices. The equipment includes surveying instruments, transits, levels, plane tables, current meters, sextants, plainimeters, calculating machines, and blue-printing apparatus.

Construction Engineering

The equipment of the Department of Civil Engineering is available for instruction in Construction Engineering. In addition there is provided a complete file of trade literature and publications, a collection of lantern

slides to supplement lectures, and a series of drawings and blueprints for investigation.

Electrical Engineering

Instruction in Electrical Engineering is given in the Electrical Engineering-Physics Building, which contains the offices, well-arranged recitation rooms, an excellent computing room, a large lecture room and a journal room.

The Machine Laboratory, sixty by eighty feet, is supplied with power from the college plant, and also through a direct connection with the lines of the Carolina Power and Light Company; two banks of transformers supply two and three phase power, at the standard voltage, to any point in the laboratories and lecture rooms. Direct current power is supplied through motor-generator sets and a rotary, with a combined rating of 150 kilowatts. About 300 Kv-a. in generators and motors and 150 Kv-a. in transformers are available for testing.

A gallery running around the laboratory provides rooms for research and other special investigations; two laboratories with a floor space of fifteen hundred feet are devoted to electric and magnetic measurements and standardization. An excellent equipment of meters and instruments facilitates the work in the laboratory. In addition there is a laboratory for photometric measurements; one for communications, one for oscillographic measurements, a small shop and a good storage battery equipment.

Engineering Experiment Station

The laboratory of the Engineering Experiment Station is located in the South end of the Civil Engineering Building. It is equipped with machines and apparatus for making many of the physical tests on materials, such as stone, brick, wood and steel. There are two Olsen Universal Testing Machines, one a hand-operated machine of 15,000 pound capacity, and a 150,000 pound electrically driven machine. There are also grinding and shaping machines, diamond core drill, a stone cutting saw, brick rattler, a Deval machine, and numerous smaller pieces of apparatus. The laboratory contains also an improved drum dynamometer, a tire tester, and a road test truck. All of the equipment in the laboratories of the several engineering departments is available for experiment and tests undertaken by the Engineering Experiment Station.

Forestry

Some of the field work of the Department of Forestry is now carried on at the Camp Polk prison farm near the State Fair Grounds, which has a thousand acres of timber land. The supervision of the timber is handled by class projects.

The Poole Woods, six miles east of Raleigh, is a virgin tract containing stands of short-leaf and loblolly pine. This is an area of seventy-five acres that has been acquired for a laboratory and as a last remnant of the virgin stand of timber in this locality.

The George Watts Hill Demonstration Forest, near Durham, is a tract of 1100 acres which has been given to the College. It contains stands of short-leaf, loblolly pine, oaks, gum, tulip, dogwood, and all of these species in different

associations. It is rolling country and serves admirably for the study of forest problems in the Piedmont section.

The Arboretum area of eighty acres near Raleigh will be developed into an arboretum containing all of the tree species and associated shrubs that grow in this climatic condition. It contains swamp land and upland which adapts it for this use. About one hundred tree species have been planted in this area.

The Wood Technology Laboratory contains a representative collection of the more common woods and will be gradually extended.

The Timber-Testing Laboratory, in connection with the Engineering Experiment Station, contains the machines for the various timber tests.

Greenhouse space is available for special problems in forest research.

Highway Engineering

The equipment at the College for instruction in Highway Engineering is fairly complete, and is constantly being added to and enlarged. The Materials Testing Laboratory in the new Civil Engineering Building is fully equipped for testing all materials used in road building; there is full field equipment for surveys, and modern drawing rooms provided with the necessary furniture and instruments. There is also a large lecture room fitted for the use of lantern slides and motion pictures.

Horticulture

The Department of Horticulture is well equipped in classrooms, laboratory, and field equipment to offer instruction in the several important and diverse fields of horticulture.

Pomology and Small Fruit Culture. The College orchards and vineyards, the laboratories, orchard equipment, a nursery plot, and other facilities are available to treat every phase of fruit-growing from the selection and propagation of varieties to the details of orchard management.

Olericulture and Floriculture. Two modern greenhouses are an important part of the equipment of the department, and are used primarily for experimental and instructional work in these two important and growing fields of horticulture. Potting rooms, propagation benches, and other more specialized equipment are used to offer both undergraduate and graduate instruction. Land and equipment to demonstrate and study details of commercial olericulture are convenient to the greenhouses.

A physiological laboratory, cytological laboratory, calculating machines, library, greenhouses and land are available to graduate and undergraduate students to carry on special studies. Experiment Station projects conducted by the Experiment Station Staff are also available for study and observation.

Landscape Architecture. General equipment and facilities for instruction are amply provided for in the combined resources of the department of Civil and Architectural Engineering, and Horticulture.

Special equipment and facilities provided by the Department of Horticulture include nursery and tree-surgery tools, instruments and supplies; drafting rooms with necessary furniture; poles, pins and tapes for simple measurements and

laying out work on the ground; planimeters and slide rule for use in making estimates; periodicals, illustrated folios, nearly six hundred lantern slides; and a first class nucleus of a standard professional library on the subject.

In Plant Materials extensive collections on the College grounds and at various points in the city furnish an ample supply of all kinds of these materials for both study and use. In addition there are several collections within easy reach for occasional visits and study.

In Design and Construction the College grounds, private properties, and numerous public and semi-public areas and institutions in and about the city provide a wide range of subjects for study and practice. The City of Raleigh itself is a most interesting subject for study in connection with the course in City Problems, since it is one of the very few existing examples of a capitol city which was planned in advance of its building.

Mechanical Engineering

The Department of Mechanical Engineering is located in Page Hall. This building is completely furnished and includes the offices for the members of the teaching staff and class rooms and draughting rooms.

The draughting rooms are equipped with tables, stools, cases for boards, reference files, and models. The senior draughting room has two Universal Drafting machines in addition to other necessary equipment. The blue-print room contains a blue-print machine and sheet washer in addition to sun frames.

The Shops Building contains the offices of the instructors in the shops and also contains completely equipped shops for instruction purposes.

The Wood Shop is equipped with a large variety of modern machines, such as: lathes, combination saw, dado saw, cut-off saw, jointer planes, mortisers, sanders, moulder, sticker, trimmer, shaper, boring machine, band saw, jig saw, all kinds of clamps, a glue room with electrical glue heater, and other essentials that go to make an up-to-date shop. These machines are driven electrically with either individual or group motors. There are many work benches, and much auxiliary equipment.

The shops and the shop recitation room are well lighted, heated, and ventilated.

The Foundry Equipment consists of a 36″ cupola, a 14″ cupola, brass furnace, core oven, core machine, molding machines, cleaning mill, motor driven elevator, emery wheel and buffer, and the necessary tools and patterns for practical molding.

The Forge Shop is equipped with forty anvils and forges, the blast for the forges being produced by a large power blower and regulated by an individual control on each forge easily accessible to the operator. The shop is also equipped with a modern down-draft type exhaust system, thereby eliminating all overhead pipes which would interfere with the proper and efficient lighting of the shop. Other equipment consists of: a special gas furnace for the heat treatment of steel, an oxy-acetylene welding outfit, drill press, iron shears, vises, emery wheel and other necessary forging equipment.

The Mechanical Engineering Laboratory is equipped with instruments and apparatus for making coal and gas analyses, oil tests, and steam, gasoline and oil engine efficiency and economy tests. The steam engines installed include plain

slide valve, automatic cut off, and uni-flow engines. The latter operates a two stage air compressor. There is also a triple expansion marine engine and a turbo-fan set. The Power Plant is equipped and used for complete boiler, steam engine, and turbo-generator tests. The laboratory is also equipped with 50,000 and 15,000 pound materials testing machines.

Physics

The Physics Department occupies the north end of the new Physics and Electrical Engineering Building. The design of laboratories and classrooms and the modern furniture make for high teaching efficiency. Laboratories and lecture tables are served by complete distributing systems for gas, water, and electricity, the latter connecting with the central power room and switchboards of the department and the power house. Six smaller rooms are provided for private research.

In apparatus the department is especially well equipped for laboratory work and for advanced research. A bequest of the late William Kearney Carr added much to the general collection of demonstration apparatus and facilities for research in X-rays and in Sound. Duplication of the most modern types of laboratory apparatus has made it possible to have the whole of each class working on the same experiment simultaneously. A library of Physics periodicals has been kept for many years, affording ready reference for those in research.

Located on the top of the Physics-Electrical Engineering Building is the Astronomical Observatory. Under the dome is a 5-inch equatorially mounted refracting telescope. Beside it is the chart, instrument, and radio room, making a good equipment for the teaching of General Astronomy. Also the latest type of radio receiving apparatus is installed in this room for use in connection with research and the radio laboratory below.

Poultry Science

The College maintains a modern poultry plant with four major breeds of poultry as best adapted to North Carolina conditions. Facilities for practical experience and teaching have been stressed in the construction of this plant, students having opportunities to observe and carry out feeding and feed mixing, selection and mating of poultry, culling, incubating and brooding, fattening, caponizing, and various methods and practices of marketing. The plant contains 23 acres, has four commercial houses, 24 brooding and rearing houses, and a capacity of 1,800 birds.

In conjunction with the production plant a special disease plant is maintained in which investigational work is carried out on the poultry disease problems of North Carolina.

In Ricks Hall the Department maintains a poultry disease research laboratory, a diagnostic laboratory, candling and grading room, sticking and picking laboratory, incubation room, disease museum, seminar room and educational laboratories.

Sanitary Engineering

The equipment of the Department of Civil Engineering, including the Materials Testing Laboratory, is available for instruction in Sanitary Engineering. Equipment is provided for routine chemical and bacteriological tests for the proper

control of Water Purification and Sewage Disposal plants. The Raleigh Water Purification Plant and the gymnasium swimming pool filter plant are available for practical instruction and demonstration. Coöperation with the Bureau of Sanitary Engineering of the State Board of Health, which is located in Raleigh, offers an exceptional opportunity for the study of all phases of Sanitary Engineering.

Textiles

In equipping the Textile School with machinery the aim has been to secure, as near as possible, ideal mill conditions. The essential principles of cotton yarn and fabric manufacturing can be fully illustrated on any of the standard machines, but in order to have ideal mill conditions, machines from different makers are included in the equipment so that the students may have the opportunity of becoming familiar with all the standard makes of textile machinery.

Carding and Spinning. For the purpose of giving instruction in the manufacture of fine and coarse yarns, a full equipment of the necessary machinery is provided. This machinery is located on the top floor of the building, and consists of pickers, cards, drawing, speeder, spinning, spooling and twisting frames, also a complete equipment of combing machinery for the production of fine yarns.

Knitting. This department is equipped with a variety of circular knitting machines for making ladies' hose and men's plain and fancy half hose. It is also equipped with loopers, bottle bobbin winder, Universal winder, balances, etc.

Weaving. This room contains a larger variety of looms than can be found in any mill. These have been carefully selected so that the students may obtain a knowledge of the different cotton, rayon, and silk looms made in the United States. The equipment contains looms to produce such fabrics as prints, sheeting, denims and twill fabrics, ginghams, fancy shirtings, plush and dress goods, as well as jacquard fabrics.

On this floor, also, is located the jacquard card-cutting and lacing equipment, and in a separate room silk throwing equipment, consisting of silk and rayon winder, 5.B. spinner, warping and beaming machine.

The development of the weaving industry in North Carolina for the past few years has been along diversified lines, and many fancy cotton, rayon, and silk fabrics are now manufactured in this State. The weaving equipment in the school has been especially selected so that textile students may be trained in the technique of manufacturing high-grade fabrics.

Designing and Fabric Analysis. A full equipment of design boards for single and double cloths are provided in the classrooms. Dies for cutting samples and different makes of balances are provided for the analysis of fabrics.

Dyeing. The Dye Laboratory is provided with a full equipment of analytical balances and other apparatus necessary for experimental work. It is also well fitted up with appropriate work tables and apparatus for experimental dyeing, dye-testing, color-matching, and the testing of dyed samples by light, acids, and alkalies.

The Dye House is equipped with the proper dyeing machinery needed in the dyeing of larger quantities of material and the giving of instruction in

boiling out, bleaching, and dyeing of raw stock, skeins, warps, and piece goods.

Research Laboratories. Two laboratories are provided with the necessary apparatus to test cotton and rayon yarns and fabrics for moisture content and tensile strength, and for the analysis of starches and oils, photomicrography and other research.

Zoology

The space devoted to Zoology is equipped to present the various subjects and to carry on research in its own and related fields. The Entomology laboratory has a large insectary with necessary equipment. The Genetics laboratory is provided with the usual equipment, and has an especially large collection of breeding animals for research and instruction in this field. The beekeeping laboratory is well provided with apparatus to illustrate all phases of beekeeping. A small apiary is maintained on the College grounds. The technique and graduate laboratories are especially well equipped for the teaching of graduate work. The museum contains a synoptic collection illustrating most groups of animals.

COLLEGE PUBLICATIONS

State College Record, issued monthly, contains announcements of official activities of the College. One issue constitutes the institution's catalog which sums up the work for the current session and outlines that for the following college session.

The President's Report is issued annually, containing recommendations of the President of the College to the Board of Trustees, and summaries of each school of the institution and their work for the past session.

The Extension Farm News, with a circulation of 3,500 among farmers, club members and agricultural experts, is issued monthly, and is the official organ of the School of Agriculture.

Bulletins of the Experiment Stations in Agriculture and Engineering and of other departments are issued from time to time, as projects are completed.

The North Carolina State Alumni News is the official organ of the General Alumni Association.

STUDENT ACTIVITIES

Students attend college to fit themselves for a technical business life. While here they are therefore expected to be businesslike in their habits, to be prompt in their attendance, and regular at classes, shops, drills, and all other duties. To prepare themselves for their daily work, students are expected to observe in their own rooms the regular morning and evening hours of study, and to be absent from the college only at the regular specified periods.

Students are expected to keep their rooms neat and sanitary; to refrain from disturbing one another by noise in the buildings or on the grounds—in short, to conduct themselves in their college home with the same courtesy, self-respect, and propriety as in their own homes.

Student Government

The first Constitution of Student Government was granted by the Board of Trustees in 1921. Student Government in State College, therefore, has already passed the experimental stage. Its service to the administration of the College, its effect on the student body, and its introduction of students to the great problem of government have made it an important factor in the life of the College.

The governing body is divided into two departments: the House and the Student Council. The Legislative Department is known as the "House." It is composed of the sixteen members of the student council, and another group elected as follows: Two members from each school elected from the Freshman Class at large. There are twenty-one members elected from the other three classes—Sophomore, Junior, and Senior. These are apportioned so that one-third shall come from each class. The freshmen do not serve until the beginning of the second term.

The Executive Department is known as the Student Council, and is composed of sixteen members elected annually. Originally there were five members from each of the three schools of Agriculture, Engineering, and Science and Business, with one member from the Freshman Class at large, elected at the beginning of the second term.

Since the creation of the Schools of Textiles and Education, provision has been made for a reapportionment so that each school is represented, but the total membership is not increased.

The officers of the Council are a President, Vice-President, a Secretary and a Treasurer. These officers are elected by secret ballot each spring at a regularly appointed polling place.

Young Men's Christian Association

The Young Men's Christian Association is a fellowship whose primary purpose is to win boys and men to Jesus Christ, to associate them in Christian living and to help them to discover and to accept the full meaning of Christian discipleship for their own lives and for society.

The program work of the Association is carried on by a junior-senior cabinet, a sophomore council and a freshman council. The governing board is composed of eleven directors and there is an employed staff of three. Since 1913 the Association has had a building on the campus, made possible by a large gift from Mr. John D. Rockefeller and smaller gifts from many other friends. This building is the religious and social center of the campus and, in addition, has recreational features.

Societies, Clubs, and Fraternities

The International Relations Club was organized to create and further interest in domestic and foreign affairs and is open to members of the faculty and students who are in sympathy with its aims.

The Monogram Club of North Carolina State College was reorganized in April, 1930. The purpose of the Club is to develop true sportsmanship in all athletics; to create a spirit of cooperation among athletes, coaches, faculty mem-

bers and alumni; to create and maintain respect and pride for the Monogram, and to regulate the wearing of athletic Monograms and Numerals.

Phi Epsilon, an organization exclusively for young women, promotes friendship among the women on the campus, improves opportunities for their participation in campus activities and fosters the social and cultural association of its members. An adviser is every ready to give counsel in individual or group problems.

The Pullen and Leazar Literary Societies afford excellent opportunities for practice in declamation debate, composition, and parliamentary law, as well as opportunities for social pleasure and recreation.

The Red Masquers is an organization for the purpose of play production on the campus. It is entirely a student-body effort toward dramatic work and has progressed to the production of three-act plays.

The Self-Help Club was organized in 1927 to make possible a more complete development of the personality of students working to help pay their college expenses. The club is open to every self-help student whose character, scholarship, and standard of work meet the requirements.

The Agricultural Club, composed of students in Agricultural Education and Forestry meets regularly and sponsors the Agricultural Students Fair and the Annual Barn Warming.

The Forestry Club consists of students in Forestry, and meets regularly for the discussion of topics in this field. The club takes part in intramural sports and general college activities.

The State College Grange is a student branch of the National Grange. Its chief purpose is to train Grange leaders. Students in Agriculture and Education, and also adults eligible to membership in regular Granges are eligible to membership.

The Horticultural Society was organized by the students to stimulate greater interest in and to foster a better understanding of the educational value, research, professional possibilities, and ideals of horticulture.

The Aeronautic Society has as its purpose the promotion of the technical phases of aeronautics. The society admits to membership students enrolled in any department of engineering, who are interested in aeronautics.

The Beaux-Arts is composed of students in Architectural Engineering and Landscape Architecture. Its purpose is the discussion of problems met in the practice of the profession.

The American Ceramic Society has established a student branch in order to promote interest in Ceramic Engineering and to prepare students for membership in the parent society.

The Chemical Engineering Society is a student branch of the American Institute of Chemical Engineers. Seniors, juniors, and sophomores in Chemical Engineering are active members, and freshmen are associate members. Chemical

Engineering subjects and problems are discussed. Members on graduation are eligible for junior membership in the A. I. Ch. E.

The Civil Engineering Society is a student chapter of the American Society of Civil Engineers. The students eligible to membership are seniors and juniors in Civil Engineering. Sophomores are eligible as associate members. There is a live interest in the discussion of engineering topics.

The Construction Engineering Society is a student chapter of the Associated General Contractors of America. This chapter has the distinction of being the first one organized in this country and it contributes materially to the professional advancement of the sophomores, juniors and seniors eligible for membership.

The Electrical Engineering Society is a student branch of the American Institute of Electrical Engineers. There is great interest in the discussion of papers, inspection trips, and addresses by visiting engineers.

Keramos, the national professional Ceramic Engineering fraternity, has established a student branch, to which juniors and seniors of good character and high scholarship are eligible. Membership is a mark of distinction in Ceramic Engineering.

The Mechanical Engineering Society is a student branch of the American Society of Mechanical Engineers. The society is composed of seniors and juniors in Mechanical Engineering. It meets twice a month for the discussion of engineering subjects.

The Student Engineers' Council represents and directs student actitvities in the School of Engineering and manages the Engineers' Celebration.

Theta Tau, a national professional engineering fraternity, installed Rho Chapter at State College in 1924. The total membership in the chapter now exceeds two hundred. The purpose of the fraternity is to develop and maintain a high standard of professional interest and to unite the members in a strong bond of fraternal fellowship.

The Business Club, composed of students in Business Administration and Industrial Management, is organized to bring about a closer contact between students and faculty and to have discussions with representative men of business in an effort to develop the professional attitude.

Delta Sigma Pi is a professional business fraternity. Beta-Delta chapter was established at State College in 1929. Its principal objects are to foster the study of business, to encourage scholarship and the association of students for their mutual advancement by research and practice, to promote a closer affiliation with the commercial world and to further a higher standard of commercial ethics and culture.

The Tompkins Textile Society meets twice a month to hear addresses from leaders in the textile industry, discuss textile topics, or hear reports upon articles in textile journals.

Phi Psi, a national professional fraternity, endeavors to develop scholarship and leadership among students in the Textile School.

Social Fraternities. Fifteen national Greek-letter fraternities and three local Greek-letter fraternities have chapters at State College. The majority of these fraternities occupy chapter houses near the college campus. The work of the fraternities is co-ordinated through a local Interfraternity Council.

Honor Societies

Alpha Zeta, the honorary agricultural fraternity, established a North Carolina chapter at State College in 1904. Its objects are to encourage scholarship and to develop leadership in the field of agriculture.

Blue Key, National Honorary Leadership Fraternity, is a working organization of members of the junior and senior classes. It strives to promote a spirit of fraternalism among the students through studying, discussing, and furthering the best interests of State College.

Gamma Sigma Epsilon is an honorary chemical fraternity. Alpha Beta chapter of North Carolina was established at State College in 1921. Its purpose is to promote scholarship and develop leadership in the field of chemistry. At the bi-weekly meetings, the members discuss chemical topics of importance.

The Golden Chain, Senior Honor Society, was organized at State College in 1926. The purpose is to foster prevailing traditions and to promote new traditions. Citizenship is the determining factor. Such qualities of citizenship as better athletics, highest standards of scholarship and government, clever expression, and fidelity to duty are prerequisites to membership in this society.

Kappa Phi Kappa, a professional education fraternity, established the North Carolina Alpha-Sigma chapter in 1931. The purpose is to promote the cause of education by enlisting men of recognized character and ability to study and practice its principles.

Lambda Gamma Delta is the honorary agricultural judging fraternity. Its aims are to promote and stimulate interest in agricultural endeavor. Students making any one of the National intercollegiate judging teams—Livestock, Horticulture, Poultry, or Farm Crops—are eligible to membership.

The Order of 30 and 3 is an honorary sophomore organization, organized by the Class of 1933 in its sophomore year. Membership is limited to eleven sophomores, voted the outstanding members of that class each year. The club fosters high ideals, cooperation between faculty and students, and support of all activities for the promotion of the best in student life.

Phi Eta Sigma Fraternity, Freshman Honor Society, was installed at N. C. State College in 1930. Members are chosen from the freshman class following their first term in college. The purpose of the society is to recognize and encourage high standards of scholarship at the beginning of students' college careers.

Phi Kappa Phi, a national honor society with forty-five chapters, has as its primary purpose the promotion of scholarship in all branches of learning. Having both faculty and student members the society seeks also to cultivate high ideals and cordial relations within its membership.

Pi Kappa Delta, national honorary public-speaking society, established the North Carolina Alpha Chapter at State College in 1925. Its purpose it to promote intercollegiate contests in debate and oratory, and to provide suitable recognition for students who represent the College in these activities.

The Pine Burr Society was founded at State College in 1922. Its purposes are to encourage high standards of scholarship, to develop leadership in all worth-while organizations on the campus, and to preserve the history of the College.

Scabbard and Blade, National Honorary Military Society, founded in 1905, has at present local units in 82 colleges and universities. Its purpose is to raise the standard of military training in the R. O. T. C. and promote good fellowship among cadet officers.

Sigma Pi Alpha, National Honorary Language Fraternity, Alpha Chapter, was founded at State College in 1927. The object of this fraternity is to stimulate an interest in and to acquire a more intimate knowledge of the language, life, customs, and culture of Spanish-speaking and other countries of the world, and to bring about a better understanding of them. Student membership is limited to those who have an unusual interest in languages and who have a high scholastic average.

Sigma Tau Sigma promotes scholarship among students in the Textile School. Members are elected on the basis of their standing in scholarship.

Tau Beta Pi, the National Honorary Engineering Society, established the North Carolina Alpha chapter at State College in 1925. The purpose is to promote scholarship among engineering students. The requirements for admission are high, and election to Tau Beta Pi is considerad a signal honor .

EVENTS

The Students' Agricultural Fair is an annual occasion when the students in Agriculture have the opportunity to display the work of the various departments in which they are interested. It is held in connection with the North Carolina State Fair.

The Engineers' Celebration, in the Spring term presents a comprehensive Exposition of the activities, interests, and equipments of the departments of the School of Engineering, the Engineers' Parade with representative and original floats, and the Grand Brawl with its impressive induction of qualified seniors into the Order of the Knights of St. Patrick.

The Textile Institute and Style Show is an annual event which affords Textile students an opportunity to display the products of their school. The home economics departments of North Carolina colleges for women cooperate with the Textile School in staging the Style Show which is usually held about the middle of April.

MUSIC

For years the College has been building up the Band, with a view to making it representative of State College. The best instruments obtainable, including types of reed and brass instruments, also orchestra bells and xylophone, have

been purchased. During the winter and spring term the Band broadcasts direct from the band room every Thursday night through WPTF. A practice room, also used as a club room for the members of the Band, is reserved. Additions to the equipment are being made from time to time.

In addition to the Band there are the following musical organizations at the College: Glee Club, Orchestra, and Quartet. These organizations all maintain a high standard, and contribute greatly to the activities and events of the College. Concert tours are conducted to various State institutions under the auspices of civic and welfare organizations.

Mu Beta Psi (National Musical Fraternity). The purpose of this fraternity is to promote a better fellowship among the musicians of the various musical organizations of a college and among the musicians of the various musical organizations of the different colleges; also to advance music to its proper place as an educational subject. Juniors having served two years in some musical unit are eligible to membership.

STUDENT PUBLICATIONS

The Student Publications Association, composed of six members, supervises publications for students of the college. Each publication, the student body and faculty are represented. The publications offer a good medium for practice in journalism, in addition to serving the college community.

The Technician is published weekly throughout the college year by a staff of students elected by the student body.

The Agromeck is the college annual, published by a staff composed of seniors.

The Wataugan, literary organ of the student body, is issued monthly, containing contributions by faculty and student-body members.

The N. C. State Agriculturist, after a lapse of several years, was revived in the fall of 1930 by the Agricultural Club and is published monthly during the College year as an agricultural magazine by students in the School of Agriculture.

PHYSICAL EDUCATION AND ATHLETICS

For some years there has been developing a nation-wide movement for the promotion of health. The World War gave great stimulus to this movement by bringing to light the fact that approximately one-half of the Nation's youth were actually unfit for military service, and by revealing that this unfitness could have been largely prevented or remedied by proper physical education.

The growing interest in physical education, intensified by the lessons of war, has already found expression in significant accomplishments. Thirty-four states have passed laws requiring physical training in all of their public schools. Playgrounds and recreation centers are being established in every progressive town or city. Many employers are providing opportunities for recreation, and are taking steps to promote the health of their employees.

The demand for trained physical directors, play, recreation, and athletic directors is increasing every year. This demand has become increasingly insistent because of the new recognition of health problems, the educational and social value of athletics, the relationship of play to moral training, and the relationship

of the use of leisure time to citizenship, industrial efficiency, and community building.

The demand for competent teachers, supervisors, and directors in schools and colleges far exceeds the supply. It is generally recognized by all educators that no man on the teaching staff has such a close personal touch with the student as the coach and physical director. The demand is for the coach or director to be a man of culture, a college-trained man in general education, in addition to having a special training for different phases of athletics and physical education.

State College recognizes the lessons of the late war, as far as the health and efficiency of her own student body are concerned. She recognizes the large field in which her graduates can be of service—in schools, communities, and factories—in the way of right and efficient living. Therefore, this department is established on a thoroughly competent and expert basis, with a sufficient staff to give this professional training in physical education and athletics, to help meet the needs of the College, State, and Nation. Sufficient courses are offered in this department for students to minor in physical education.

The Physical Education Department is now quartered in the new Frank Thompson Gymnasium. This building is one of the largest and best equipped gymnasiums in the South, costing approximately $225,000. The basement floor is equipped with 1,000 steel lockers for use of those taking work. There is a large private training room for the varsity team, with private showers; also private faculty and visiting team locker rooms. Adjoining the basement floor is a white-tiled natatorium, covered completely by a glass skylight. The pool is inter-collegiate in size, 35 x 75 feet, with sufficient room to take care of spectators at meets. The first floor consists of four offices for department staff, main gymnasium and auxiliary gymnasium. The main floor is 110 x 130 feet. Seating capacity is 1,500, using knock-down bleachers, for varsity basketball games played on a maximum-size court. There are two cross-courts, 86 x 47 feet, used for tournaments and class work. Adjoining the main floor is the auxiliary gymnasium, 110 x 35 feet. This is provided with apparatus and equipment for recreation and special exercise groups. A gallery surrounding the entire main floor will at some time permit the laying of an indoor track.

The College has two large athletic fields. Riddick Field, the inter-collegiate competition field, has a seating capacity of 10,000. Southside Park, adjacent to the gymnasium, 400 x 400, is used for freshman teams and intramural athletics. Large flood-light projectors have been installed on this field for night practice in football. Twelve new tennis courts have been constructed adjacent to the gymnasium.

The Organization of the Department

The Department of Physical Education is in the School of Science and Business. Its activities consist (a) of conducting the courses in Physical Education offered in various curricula for which college credit is given, and (b) of supervising the athletic activities of the College, both intramural and inter-collegiate.

The courses in Physical Education comprise the physical training required of all students in the first two years, and the professional courses which are elective in some curricula.

1. Physical Training Courses are required of all freshmen and sophomores. These courses are so standardized that they are presented, instruction given, and examination given each individual student on the same systematized basis as all other courses in the college. The work to freshmen is presented on the "stunt" basis, thereby adding an interest and an enthusiasm of accomplishment. Freshmen are taught the co-orgination necessary to do "athletic stunts" in the fall, gymnastic stunts in the winter, track efficiency tests in the spring. A calisthenic drill is thoroughly given in the fall for future use of the individual should he not have access to a gymnasium, golf course, or tennis court. The sophomores are taught the rules and technique of playing sports such as tennis, boxing, handball, volleyball, basketball, soccer and tag football, playground baseball and swimming. It is hoped that each student will become interested and an adept in one or more sports that can be used for his personal recreation and exercise.

2. Professional Courses. These courses are planned to coöperate with the School of Education to better prepare their graduates to meet the demands made upon them in their chosen field of labor. Students desiring to specialize in physical education and coaching are able to do so. Sufficient courses are given that the student may minor in this field. At present the demand is for the teacher majoring in one or more academic subjects and minoring in physical education. The professional courses will be increased as the demand increases for the teacher to major in physical education.

All phases of intercollegiate athletics at the College are under the supervision of the Faculty Athletic Committee and under the direct administration of the athletic director.

All phases of physical education and intramural athletics are under the supervision of the Dean of the School of Science and Business and under the direct supervision of the Professor of Physical Education.

RULES OF ELIGIBILITY

North Carolina State College is a member of the Southern Conference and subscribes to its rules of eligibility for intercollegiate athletic contests.

MILITARY TRAINING

Military Training at the North Carolina State College of Agriculture and Engineering is organized in a department called the Reserve Officers Training Corps (R. O. T. C.). This department is one of the major divisions of the college. Instruction in Military Science and Tactics is divided into two periods of two years each. The first two years for Freshmen and Sophomores embrace the basic courses, and the last two years for Juniors and Seniors, the advanced courses.

All physically acceptable Freshmen and Sophomores are required to take the basic courses, except those who are excused by the President of the College or the Professor of Military Science and Tactics, but those excused from taking the basic courses are required to take alternative courses, in either History or Civics. The advanced courses for Juniors and Seniors are elective. A student, upon successful completion of the advanced courses in Military training, may, if he so elects, receive a reserve commission and be assigned to a reserve unit, normally in his own locality.

The Federal government not only furnishes officers of the regular army as instructors, but it also assists very materially by supplying without cost equipment and uniforms to all R. O. T. C. students, and by providing pay for those who volunteer to take the advanced courses for Juniors and Seniors. The amount paid by the Federal government to each R. O. T. C. student during the Junior and Senior years is approximately $242.00.

While the government furnishes necessary military uniforms and equipment, the College finds it desirable to require each student to make a small deposit as a guarantee against the return of such government clothing and equipment as is issued him. The student must also provide himself with a pair of low tan shoes. For the sake of uniformity, these must be purchased at the College. Other incidental expenses cost each student about $5.00 annually.

North Carolina State College not only has one of the largest Reserve Officers Training Corps units in the Fourth Corps Area, comprising the eight states of North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee, Mississippi, and Louisiana, but also has one of the best R. O. T. C. units in the South. It is organized as an infantry regiment of three battalions, with an excellent regimental band of sixty student members.

The Military Training is conducted so as to emphasize the fundamental importance of courtesy, honorable conduct, good sportsmanship, and a spirit of fair play. Moreover, it seeks to improve the student's general health and appearance. Neatness of clothing and personal appearance of the R. O. T. C. students are insisted upon, and students are required to be punctual and regular in attendance in classes, drills, and other military duties.

One of the greatest benefits to the student himself comes from the fact that Military Training fosters discipline. Men who are to command other men successfully should first learn to obey. The Military Department in its training insists that R. O. T. C. students should stand, walk, and sit erect, and teaches them to carry themselves properly. Finally, the R. O. T. C. Military Training furnishes important elements in a sound, practical education in the principles, duties, and responsibilities of American citizenship.

INFORMATION FOR APPLICANTS

Classification of Undergraduate Students

A *regular student* is one who desires to pursue one of the standard curricula offered by the institution.

An *irregular student* is one who presents the required number of units for entrance, but who does not desire to take any of the regular curricula that are offered, and does not desire to become a candidate for a degree. Irregular students will be admitted only upon the approval of the Dean of the School in which the student desires to register.

A *special student* is one who does not present the required number of units for entrance, but who is admitted to take certain subjects. An individual of mature age, already engaged in a trade, occupation, or profession, may, upon the recommendation of the Dean of the School in which he desire to register, be admitted as a special student without fully meeting the entrance requirements in order to further improve himself in his vocation. Special students are required to present a record of their previous education when applying for admission.

Special students are not eligible for a degree, cannot represent the institution in intercollegiate contests, and cannot become members of fraternities.

Requirements for Admission to Undergraduate Schools

(See Graduate School for Graduate Admission.)

There are two bases for the admission of regular students:

1. Graduates from a standard high school (a high school which is accredited by the State Department of Public Instruction) are eligible for admission without an examination.

2. (a) Graduates of four-year non-standard high schools may be admitted by passing successfully the college entrance examination prepared by the Examination Committee of the North Carolina College Conference.

(b) In exceptional instances a person of mature age may be admitted by the Dean of the School on the basis of his ability to carry the regular work of a curriculum in that school. This ability shall be determined by examinations, which shall include a psychological test.

Each applicant for admission must be at least sixteen years of age, and must have a certificate of good moral character from the school last attended. A regular student, although admitted to college, must meet the specific requirements of the school selected.

Any student deficient in specified units may, upon the recommendation of the Dean of the School he desires to enter, be admitted, but must make up his deficiencies before the beginning of his sophomore year.

Fifteen units of credit are required for admission to the four-year curricula. A unit is defined as a subject pursued in an accredited high school for five periods a week throughout the year, each period being at least forty minutes.

The specified subjects are as follows:

	Units of Credit
ENGLISH:	
Grammar and Composition	1
Literature for Study	1
Literature for Reading	1
HISTORY:	
American and any other listed below	2
MATHEMATICS:	
Algebra to Quadratics	1
Algebra, Quadratics through Progressions	.5
*Plane Geometry	1
SCIENCE:	
Any one listed below	1

Besides these required subjects, an applicant must present from the specified subjects or the following elective list enough credits to total fifteen units.

Elective Subjects

(The figure in each subject represents the maximum number of credits which will be acceptable. Less than that number may be offered. The total acceptable units in each group include those offered in the specified subjects.)

SCIENCE GROUP (Not over 4 credits):

Biology	1
Botany	1
Chemistry	1
General Science	1
Physics	1
Physiology and Hygiene	1
Physical Geography	1
Zoology	1

*Not required in the School of Agriculture or School of Education.

LANGUAGE (Not over 8 credits):

English	4
French	2
German	2
Latin	4
Spanish	2

HISTORY AND SOCIAL SCIENCE (Not over 4 credits):

American	1
English	1
General	1
Medieval and Modern	1
Ancient	1
North Carolina	.5
Civics and Social Science	1

MATHEMATICS:

Algebra	2.5
Plane Geometry	1
Solid Geometry	.5
Trigonometry	.5

MISCELLANEOUS (Not over 4 credits):

Agriculture	4
Bookkeeping	1
Business Arithmetic	1
Commercial Geography	.5
Stenography and Typewriting	1
Drawing	1
Economics	1
Mechanic Arts	2
Mill Practice	1
Any other High School credits	1

Explanation

1. In addition to the three specified units in English, a fourth elective unit may be allowed for a full year of advanced work in the subject, including the history of English or American literature.

2. In Science a unit of credit is allowed only when the course includes laboratory. A record of the laboratory work in Science should be kept in a suitable note-book, and certified by the teacher of the subject or the principal or superintendent of the school.

3. In Foreign Modern Languages, one unit of credit is allowed for each year's work. The first year's work should cover the grammar and about 200 pages of translation.

4. In Latin, one unit each is allowed for grammar and composition, Cæsar (Books I-IV), Virgil (Books I-IV of the Æneid), and Cicero (six orations).

5. Standard high school textbooks are recommended for all subjects.

Certificates

Certificates must be presented on official College Admission blanks furnished by the College Registrar. These must be signed by the proper officials of accredited high schools or other preparatory schools of approved standing. These certificates must be submitted to the Registrar for approval. It is of distinct advantage to the applicant to send in his certificate as early as possible after the work is completed, but no certificate should be submitted until all work done for college entrance is entered on the certificate blank.

Certificates mailed to the College should be directed to the Registrar's office.

Advanced Standing

Students who have attended colleges of approved standing will be allowed credit for work done upon the presentation of proper certificates to the dean of the school in which they expect to register. At least one year's work in residence is required for an undergraduate degree.

Vaccination

Each applicant for admission is required to be vaccinated against smallpox before he can be admitted, unless he has been successfully vaccinated within two years preceding his registration. Since inoculation against typhoid fever has become a standard preventive measure, parents are requested to have their sons inoculated before coming to college. However, this is not compulsory. The College offers a treatment free to all students. Therefore, there is no valid reason why any student should contract this disease if he will avail himself of this preventive of a disease to which young men are sometimes peculiarly susceptible.

Registration

The College year is divided into three regular terms and the summer session. For the year 1932-33, the first term begins with a meeting of the College Faculty, September 22, 1932; registration day for the freshmen is Friday, September 23, and the Saturday, Sunday, and Monday following are set aside by the college for assisting freshmen in adjusting themselves to their new environment. Tues-

day, September 27, 1932, is registration day for all students other than freshmen.

Tuesday, January 3, 1933, is the second term registration day for all students.

Monday March 27, 1933, is the third term registration day for all students.

An extra feel of $10.00 is charged to each student who registers later than the regular days specified for registration.

Student Assemblies

The College Auditorium is not large enough to accommodate a joint assembly of all classes. The Freshman class will meet twice each week. Wednesday the freshmen will meet by schools with the dean or chairman of a department, and on Friday the entire freshman class will meet in an assembly in Pullen Hall. Sophomores will meet in an Assembly in Pullen Hall on the second Wednesday in each month. Juniors and Seniors will meet in an Assembly in Pullen Hall on the first Wednesday in each month. Attendance on these Assemblies is required.

Grades and Credits

The minimum passing grade in any course is 60 per cent. The following system is used in reporting the grades of students: A, 90 to 100 per cent, inclusive; B, 80 to 89 per cent, inclusive; C, 70 to 79 per cent, inclusive; D, 60 to 69 per cent, inclusive; F for all grades below 60 per cent. Where the grade F is reported to the Registrar the student must repeat the course in class before he shall receive credit for the course. A student may be given an incomplete grade (I) if some specific portion of his work remains unfinished at the end of the term, provided his standing in the course has been of grade C or higher.

An incomplete grade, which is not removed by the end of the first term in which the student is in residence after receiving it, automatically becomes a failure.

The following system will be used in assigning "points" for the graduation requirements: A, 3 points per term credit; B, 2 points per term credit; C, 1 point per term credit, and D, 0 point per term credit.

In order that a student may reënter for any term he must have passed the following percentage of his term credits during the preceding term; Freshman, 50 per cent; Sophomore, 60 per cent; Junior, 60 per cent, and Senior, 60 per cent.

A student, who is not eligible to reënter regularly in any term under the foregoing scholarship rule, may be permitted to proceed on probation in the succeeding term upon due consideration by the Scholarship Committee, and vote of the Faculty Council. If permitted to reënter, his roster will be adjusted by the Director of Instruction of his School, and he will be placed under the direction of a special adviser, who, during the term, will make recommendations to the Faculty Council as to his continuance in, or withdrawal from the College. The re-entrance of a student after the lapse of a term following that in which his eligibility was forfeited shall be decided by the Director of Instruction of his school upon the basis of maximum scholastic advantage to the student. This rule also applies to students applying from other institutions.

Credit is allowed upon a course only when the course is entered on the student's roster filed with the Registrar and Director of Instruction of his school.

The following are the minimum requirements for graduation at the North Carolina State College: School of Agriculture, 216 term credits and 216 credit points. School of Education: (a) Teachers of Agriculture, 210 term credits and 210 credit points; (b) Teacher of Industrial Arts, 218 term credits and 218 credit points; (c) all other curricula, 198 term credits and 198 credit points. School of Engineering, 222 to 225 term credits, and from 222 to 225 credit points. School of Science and Business, 198 term credits and 198 credit points. School of Textiles, 222 term credits and 222 credit points.

Absence from Class or Examination

For class absences a student will lose one point for each three absences, except when the absentee is engaged in activities authorized by the College or except upon the presentation of a doctor's certificate showing he was unable to attend class.

Any student who is absent from class, without a satisfactory reason, a sufficient number of times to cause him to lose a number of points equal to one-half the credit hours he is carrying per week will be placed on probation and his parents and instructors notified.

During probation a student will not be permitted to be absent from any college duty. If a student is absent from a class without a legitimate excuse during a period of probation he shall be subject to suspension or dismissal at the discretion of the Faculty Council.

There shall be a double loss of points for all college work missed on the two days preceding and on the two days following the authorized college holidays.

If a student is absent from any final examination without an official excuse his grade will be reported as "failure."

EXPENSES

The total college expense of a student will vary according to the taste and requirements of the individual, but need not exceed $460.00 for students from within the State or $480.00 for those from outside the State. This amount includes the cost of board, tuition, lodging, heat and lights, fees and deposits, books, drawing instruments, laundry, and certain necessary incidentals. It does not include an allowance for clothing, pocket money, and contingencies.

Freshmen who register in the School of Engineering will be required to purchase drawing equipment which will cost from $25.00 to $30.00, depending upon the completeness of the set and the quality of the material.

Tuition and Fees

The College is organized and operated on the basis of a full scholastic year as a unit. All tuition charges, room rents and fees, therefore, are for the full scholastic year, and are due and payable in advance, but for the convenience of the student, and at his option, may be paid in two installments in September and January.

All students pay tuition, except those students who hold scholarships, and sons of ministers residing in North Carolina. Sophomore, junior and senior students who are residents of North Carolina and are preparing to teach in the public schools of the State may be permitted to give notes for tuition, which

will be automatically canceled when evidence has been presented of the students having taught in the schools of North Carolina. Tuition and fee charges are due and payable in full at registration, or may be divided in two equal installments, payable at registration in September and January. The charges for tuition and fees are as follows:

Undergraduate Tuition and Fees

	Students residing in North Carolina	*Other Students*
Tuition	$ 80.00	$100.00
*College fees	64.00	64.00
**Student activity fees	8.00	8.00
Athletic fee	15.00	15.00
Total for year	$167.00	$187.00

The above fees are for all regular undergraduate students, and for all special and irregular students carrying twelve or more credit hours per term. Special and irregular students carrying less than twelve hours per term pay the same fees as graduate students.

Students entering after the date of registration will be required to pay an extra fee of $10.00.

A deposit of $10.00 is required of each student in the Reserve Officers Training Corps to indemnify the College against the loss of Military Equipment. All unused portion of this amount is returned to the student at the end of the year.

Graduate Tuition and Fees

Graduate students, and all special and irregular students carrying less than twelve credit hours per term, will pay a matriculation fee of $5.00 (payable only once) and $3.00 per term credit hour. This payment includes tuition and college fees, but does not include student activity and athletic fees which are optional with graduate students. Members of the faculty and others entitled to free tuition will pay the matriculation fee and $1.50 per term credit hour.

Room Rents

Rooms in the college dormitories must be reserved in advance and no room will be assigned until a deposit of $25.00 has been made, and this deposit is due on or before August 15. Rooms reserved will be held until then, after which time, if the deposits have not been received, they will be assigned to others.

The minimum room rent, including heat, light, water, and janitor service, is $65.00 a year and the maximum $80.00 a year. A few less desirable rooms are available at $50.00. Since certain rooms are more desirable than others, the rent is determined by the location of the room.

Refunds

A student withdrawing from college within ten days from the date of entrance shall be refunded the amount paid less the registration fee and a reasonable charge for board, lodging, and services while in college.

---

* These fees include Registration, Hospital and Medical, Library and Lecture, Laboratory and classroom and Physical Education. Students living out of college with their parents need not pay the hospital and medical fee amounting to $8.00. Women students do not pay the $6.00 Physical Education fee.

** These fees include student government, student publications and general student activities. Students in Agriculture and Agricultural Education pay $4.00 additional. Students in Engineering pay $1.00 additional.

A student withdrawing from college later than ten days from the date of entrance shall receive no refund, except for board and military deposit. Refunds for board shall be under the usual regulations governing withdrawal from the dining hall.

A room reservation may be canceled at any time before September 10, and in case formal notice is given the Superintendent of Buildings in writing before that date the full amount paid will be refunded.

A student withdrawing from a dormitory room regularly assigned and occupied for a period of ten days shall be entitled to no refund.

What a Student Needs for His Room

The College rooms are supplied with necessary furniture. Each student, however, should bring with him his own blankets, bed linen, and towels.

Board

There is maintained for the convenience of the student body a dining hall, which serves meals at minimum cost to the students. There is also operated by the College a cafeteria, which is modernly equipped and thoroughly sanitary. It opens early in September and remains in operation continuously until after the Summer School. The dining hall and the cafeteria are operated as non-profit service agencies, and all food served is of the very best and is furnished at the lowest possible cost.

Charges for board in the main dining hall will be payable monthly in advance. The total cost for board for the college year will be approximately $120.00.

Self-Help

Some students who are alert and energetic earn part of their expenses in college. Some of the agricultural students find work at odd hours on the farm, in the orchard, in the barn, and in the dairy. Some students act as agents for merchants and pressing clubs. The College employs a few students in the dining-room and elsewhere. A student's ability to help himself will depend largely on his own power to find work and to hold it after he finds it. It must be remembered that the duties of the classroom take most of a student's time.

A register of those asking for student labor is kept by the College Y. M. C. A.

It is well to bear in mind that except in unusual cases opportunities for work are greater after the first year. The older student who has established himself and become familiar with conditions enjoys a decided advantage.

Student Loan Fund

The Alumni Association established in the year 1900 a small loan fund to be loaned to needy students of talent and character. This has been augmented from various sources and now amounts to $19,000.00. This amount includes the Finley Loan Fund, mentioned below, of $1,000.00, the Masonic Loan Fund of $4,500.00, and the Frank M. Harper Loan Fund of $200.00. Contributions have been received also from C. C. Chamberlain, Chairman Committee Sixth Masonic District Loan Fund, and from the New Bern Masonic Theatre Loan Fund. Loans are made at 6 per cent, and good security is required. As the loan fund is small and is kept loaned out, new loans can be made only as old ones are

paid. The fund at present is restricted to students in the senior and junior classes.

Finley Loan Fund. As a memorial foundation to William Wilson Finley President of the Southern Railway Company at the time of his death, that company has established a Finley Loan Fund for needy students of agriculture. The fund amounts to $1,000. This is loaned to students who are making their way through college, and returned by them to the fund after they have finished college and gone to work. It is administered by the Treasurer of the College, and all beneficiaries are named by the College.

Awards of Free Tuition

Regular Scholarships. When the College was chartered the Legislature required the trustees to admit, free of tuition, one hundred and twenty young men. The only conditions attached to these scholarships are that they shall go to young men (1) who are unable to pay for all their education, (2) who are of excellent moral character. As far as possible these appointments are distributed among the different counties. Appointments are made by the President of the College, after inquiries as to the needs and character of applicants, and after a written recommendation from a member of the Legislature from the applicant's county. Certificates of inability to pay have to be made by the applicant and his parents. Blanks are furnished for this purpose.

Agricultural Scholarships. The Legislature of 1913 authorized the College trustees to give a limited number of agricultural scholarships to students who agree to teach for two years in an agricultural school, or to serve in an agricultural experiment station, or to farm in the State for two years after graduation. The same conditions as to financial inability and moral worth go with these scholarships as with the regular scholarships.

The John Gray Blount Scholarships are endowed by Colonel W. B. Rodman, of Norfolk, Va., in memory of his great-grandfather. The maximum value of each of these two scholarships is $200.00.

The W. O. Mitscherling Fellowship Fund. This fund is provided annually by Dr. W. O. Mitscherling, of Burlington, N. C., for the benefit of the Chemical Engineering Department, and is to be used in assisting graduate students and for the encouragement of research work.

The Champion Fibre Company Fellowship in Chemical Engineering provides a fund for use in encouraging graduate and research work in Chemical Engineering.

MEDALS AND PRIZES

The Alpha Zeta Cup is awarded annually on Scholarship Day, to the Sophomore in Agriculture, who made the highest scholastic average during his freshman year.

Alumni Athletic Trophy. The General Alumni Association presents annually a handsome trophy to the student athlete doing the most outstanding work during the college year.

The American Institute of Chemical Engineers Award is presented annually to the Chemical Engineering sophomore who has made the highest scholastic record during his freshman year.

The Associated General Contractors Prize is awarded each year by Carolina's Branch of the Associated General Contractors of America to that member of the senior class in Construction Engineering who has the best scholarship record for the sophomore, junior, and senior year. The prize consists of a year's special training in construction in the field with pay.

Delta Sigma Pi Scholarship Key. To encourage high scholarship Delta Sigma Pi presents annually at every university and college where it has a chapter the Delta Sigma Pi Scholarship Key, which is awarded by the faculty to that senior who upon graduation ranks highest in scholarship for the entire course in Business.

The Elder P. D. Gold Citizenship Medal has been established by Mr. C. W. Gold, of Greensboro, N. C., member of the class of 1896, in memory of his father, Elder P. D. Gold, of Wilson, N. C.

This medal is awarded to that member of the Senior Class who has most distinguished himself in Student Citizenship during his sophomore, junior, and senior years.

The award is based on four qualities of citizenship in the college community—Scholarship, Student Leadership, Athletics, and Public Speaking. These four qualifications are certified to by the College Registrar, the Student Council, the Faculty Athletic Committee, and a committee composed of the ranking junior officer in all college societies in which public speaking is practiced.

The Moland-Drysdale Scholarship Cup is awarded to the freshman in the Department of Ceramic Engineering who has the highest scholastic average for the two terms preceding the annual Scholarship Day. In making the award, considerable weight is also given to interest shown in the activities of the department. The cup was presented to the Department of Ceramic Engineering by George N. Moland, of Hendersonville, N. C., president of the Moland-Drysdale Corporation of that city.

National Association of Cotton Manufacturers Students Medal is awarded annually to the Textile student who has the highest proficiency in his work.

Phi Kappa Phi Medals are awarded each year at the Scholarship Day exercises. A gold medal is awarded to the senior who as a junior made the highest grades. A silver medal is awarded to the junior who as a sophomore made the highest grades. A bronze medal is awarded to the sophomore who as a freshman made the highest grades.

The J. C. Steele Scholarship Cup is awarded annually to the student of the three upper classes in the Department of Ceramic Engineering who has the highest scholastic average for the three terms preceding the annual Scholarship Day. In making the award the head of the department also takes into consideration the personality of the candidates and the interest shown in the departmental activities during the previous year.

The cup was presented to the Department of Ceramic Engineering by J. C. Steele and Sons of Statesville, to commemorate the establishment in that city of the first plant for the manufacture of ceramic machinery in the South by J. C. Steele.

The School of Science and Business Scholarship Plaque is accorded each year on Scholarship Day to that student who has made the most progress in scholarship during the previous year. The award is unique in that it is for *improvement* in scholarship, the usual method being to award for highest scholarship.

THE SCHOOL OF AGRICULTURE

Ira Obed Schaub, *Dean and Director of Extension*
Zeno Payne Metcalf, *Director of Instruction*
Rhett Youman Winters, *Director of the Agricultural Experiment Station*

ORGANIZATION

North Carolina is one of the foremost states in the Union in the value of farm crops. The scientific investigations, demonstrations, and instruction of State College, in coöperation with the State Department of Agriculture, have been particularly effective in promoting better methods of farming, and in adopting scientific agriculture. The majority of the people of the State employed in gainful occupations are devoting their energies to some form of agriculture, and the greater part of our wealth and prosperity is derived from this great vocation.

The art of cultivating the soil properly and living well at home, the value of selecting that form of agriculture which is in greatest demand, and the best method of turning the surplus products into commercial channels that will be most profitable to the producer are matters of the greatest concern to the people of the State. The School of Agriculture has been reorganized for the purpose of rendering a much larger service to the State along these and other lines. The Experiment Station and the Extension Service have been more closely united with college instruction, and the courses of study have been so organized and the instruction so broadened as to offer much larger opportunities to young men entering college, and to farmers and other agricultural workers throughout the State.

Beginning a generation ago on a very small scale, the School of Agriculture has grown until today it embraces the following important divisions: (a) Agricultural Economics, including Farm Marketing and Farm Management; (b) Agronomy, including Field Crops, Soils, Plant Breeding, and Agricultural Engineering; (c) Animal Industry, including Animal Production, Animal Nutrition, Dairy Production, and Dairy Manufacturing; (d) Botany, including Bacteriology, Plant Physiology and Plant Diseases; (e) Horticulture, including Pomology, Small Fruit Culture, Floriculture, Truck Farming, and Landscape Architecture; (f) Forestry; (g) Poultry Science, including Poultry Diseases, Poultry Breeding, Poultry Feeding, and Poultry Management; (h) Zoology, including Genetics, Entomology, and Animal Physiology.

THE PURPOSE OF THE SCHOOL

The purpose of the School of Agriculture is three-fold: (1) To secure through scientific research, experimentation, and demonstration accurate and reliable information relating to soils, plants, and animals, and to secure from every available source reliable statistical, technical, and scientific data relating to every phase of agriculture that might be of advantage to our State; (2) to provide instruction in college for young men who desire to enter the field of general agriculture, or wish to become professionals in agricultural education or specialists in any field of science related to agriculture, and (3) to disseminate reliable

information through publications and through extension agents, and through a wise use of this information to give instruction to the agricultural workers of the State in the scientific, experimental, and practical progress in the various lines of agriculture.

All effective instruction in agriculture is based on research and investigation, and the curricula are organized so that not only the subject-matter for classroom instruction and extension work may be drawn from research, experimentation, and demonstration, but that the students themselves shall have the opportunity to work under the direction of research specialists.

The vocations open to well trained young men in the field of agriculture and the opportunities afforded for distinct service to the State are greater than ever before in our history. In order that the larger vocations in agriculture may be presented to the youth of our State, the courses of study are so organized as to give specific training for the following major vocations:

General Farming.
Agricultural Extension Agents.
Agricultural Specialists in State or Federal Departments.
Stock Raising and Dairying.
Specialists in the Manufacture of Dairy Products.
Foresters.
Fruit Growers.
Truck Farming.
Poultrymen.
Agricultural Specialists in Foreign Lands.

In addition to these major vocations, the School of Agriculture gives instruction in Beekeeping, Floriculture and the basic instruction for teachers of Agriculture.

ADMISSION

Each applicant for admission must present evidence that he has satisfactorily completed a four-year curriculum of not less than fifteen units in a secondary school which is approved by the State Department of Education.

Each applicant for admission must be at least sixteen years old, and must submit fifteen units of credit from an accredited high school. Of these units 8.5 are in specified subjects and 6.5 in elective subjects.

ADVANCED STANDING

Students who have attended other colleges will be allowed credit for work done upon the presentation of proper certificates to the Director of Instruction.

AGRICULTURAL CURRICULA FOR UNIVERSITY AND COLLEGE GRADUATES

Selected courses leading to the degree "Bachelor of Science" in Agriculture are offered to graduates of universities and standard colleges. These are arranged in accordance with the vocational aim of the individual student, and in the light of credits presented from the institution from which the student has been graduated, subject to the approval of his adviser and the Director of Instruction.

In cases where the student presents enough credits which may be used for courses required in his curriculum he may be graduated with a B.S. degree in one year. In no case should it take more than two years to complete the work for his B.S. degree.

REQUIREMENTS FOR GRADUATION

The requirement for graduation is the satisfactory completion of one the curricula outlined below.

A minimum of two hundred and sixteen (216) term credits and two hundred and sixteen (216) points is required for graduation from the School of Agriculture. The term credits should be distributed as follows: A maximum of sixty (60) term credits in major department, and a minimum of eighteen (18) term credits in Language, twenty-eight (28) term credits in Science, nine (9) term credits in Social Science, twelve (12) term credits in Military Science or alternative, and six (6) term credits in Physical Education.

Students entering with advanced standing are required, during the remainder of their course, to earn at least as many points as the number of term credits remaining necessary for graduation.

DEGREES

The degrees of Bachelor of Science in Agriculture and Bachelor of Science in Forestry are conferred upon the satisfactory completion of one of the curricula in Agriculture.

The degree of Master of Science in Agriculture is offered for the satisfactory completion of one year of graduate study in residence. Candidates for this degree are enrolled as students in the Graduate School.

The professional degree of Master of Agriculture may be conferred upon graduates after five years of service in Agriculture, and upon the acceptance of a satisfactory thesis.

CURRICULA IN AGRICULTURE

The curricula in Agriculture offer a combination of practical and theoretical work. About half of the time is devoted to lectures and recitations, and the other half to work in shops, laboratories, greenhouses, dairy, poultry yards, and on the College farm.

In order that every graduate of the School of Agriculture shall acquire a liberal education in lieu of specializing too intensely, and shall become a leader having breadth of vision, the curricula in Agriculture contain broadening subjects such as language, literature, history, and social sciences.

GENERAL AGRICULTURE

The agricultural wealth of North Carolina is measured by the value of her crops and animal products. The annual value of field crops constitute 80 per cent of the agricultural wealth of this State. To this must be added the value of the horticultural crops. North Carolina possesses geographical advantages and advantages of soil and climate favorable to the development of the horticultural industries. That this development is taking place is shown by an increase in car lot shipments of fruits and vegetables each year. The home garden and orchard, commercial and home floriculture and the exceptional opportunities presented in North Carolina for the disposal of orchard and vegetable products present exceptional opportunities not only in diversification of farm practices but also opens up possibilities for profitable specialization. Improving the fertility of the soil, the use of improved machinery, and the production of higher quality and yield in crops has resulted in an agricultural prosperity that has made possible a great industrial development, especially in the chemical and cotton industries of the State Greater diversification of crops is now being practiced by successful farmers. This has resulted in many new problems in Soil Management and Crop Production.

Animals play a most important part in the life of our State on account of their uses for food and labor. The study of animals as relating to the farm economy and the markets of the State becomes, therefore, a most important matter. The poultry industry is keeping pace with the development of the other industries of the State.

Perhaps there is no place in American life today where there are more unsolved problems than in agriculture. The solution of these problems will require able leadership. This leadership should come from the men who are engaged in farming and who understand the farmer and his problems. One of the aims of the curriculum in General Agriculture is to train young men of this type who will return to the farm and give to agriculture a body of trained leaders. Training of this type should be as broad and fundamental as the training for any profession. Hence, the first two years of the curriculum in General Agriculture is devoted largely to general and educational subjects, the fundamental Sciences, and the general technical agricultural subjects.

The curriculum in General Agriculture trains students to become successful farm owners, farm managers and farm operators, and furnishes the basic instruction for men who expect to engage in any business closely related to agriculture.

CURRICULUM IN GENERAL AGRICULTURE

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Composition and Rhetoric, Eng. 101	3	3	3
General Chem. 101, 103, and 105	4	4	4
General Botany, Bot. 101 and 102, or General Zoölogy, Zoöl. 101	4	4	0
Field Crops, F. C. 101	0	0	4
General Animal Husbandry, A. H. 101	0	3	3
General Horticulture, Hort. 101	0	0	3
General Poultry, Poul. 101	3	0	0
American Economic History, Hist. 101-A, or Mathematical Analysis, Math. 100	3	3	0
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	20	20	20

Sophomore Year

Farm Equipment, Agr. Eng. 130	3	0	0
Soil Geology, Soils 110	4	0	0
Soil Management, Soils 115	0	0	4
Dairying, A. H. 103	0	3	0
Animal Nutrition, A. H. 102	0	0	5
Introduction to Economics, Econ. 102	3	0	0
Agricultural Economics, Agr. Econ. 260	0	0	3
Agricultural Physics, Phys. 105	0	0	5
Animal Physiology, Zoöl. 201, or Plant Physiology, Bot. 209	3	3	0
Poultry Production, Poul. 202, or Cereals, F. C. 201	0	4	0
General Zoölogy, Zoöl. 101, or General Botany, Bot. 101-102	4	4	0
Organic Chemistry, Chem. 141	0	3	0
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Cotton, F. C. 210, or Tobacco, F. C. 215	0	3	0
Legumes and Grasses, F. C. 205	0	0	4
Terracing and Draining, Agr. Eng. 135	0	0	3
Swine Production, A. H. 201	3	0	0
Farm Meats I, A. H. 206	0	0	3
Bacteriology, Bot. 203	0	4	0
Elective in English	3	3	3
Pomology, Hort. 205	3	0	0
Genetics, Zoöl. 304	4	0	0
Entomology, Zoöl. 204	0	0	3
Electives	3	3	3
	16	16	16

Senior Year

Rural Sanitation, Bot. 206	0	3	0
Farm Conveniences, Agr. Eng. 147	0	3	0
Farm Buildings, Agr. Eng. 145	0	0	3
Soil Fertility, Soils 265	3	0	0
Animal Breeding, A. H. 202, or Plant Breeding, F. C. 345	3 or 4	0	0
Horses and Mules, A. H. 209	3	0	0
Common Diseases, A. H. 219, or Crop Diseases, Bot. 202	0	0	3
Farm Marketing, Agr. Econ. 265	3	0	0
Farm Management, Agr. Econ. 261	0	0	3
Electives	4	10	7
	16	16	16

CURRICULUM FOR AGRICULTURAL SPECIALISTS

This curriculum is intended for those who expect to become specialists in the various departments of technical agriculture. It is to be arranged in accordance with the vocational aim of the individual student, subject to the approval of his adviser and the director of instruction. Students specializing in this curriculum will find vocational opportunities as:

Agricultural Specialists in State or Federal Departments, and Agricultural Colleges.

Agricultural Inspectors.

Most states now maintain inspection of fertilizers, seeds, nurseries, and insecticides. Most cities have special inspectors for city milk supplies. Students seeking vocational opportunities in these fields may elect appropriate subjects in their junior and senior years.

Agricultural Extension Specialists.

Students in this group will find employment as agricultural agents for railroads and commercial firms dealing in agricultural products and as extension specialists in the various fields of agriculture in the Extension Departments of agricultural colleges and as county agricultural agents.

Agricultural Specialists for Commercial Organizations.

The School of Agriculture is well equipped to train men for agricultural industries such as manufacturing of fertilizers, livestock and poultry feeds and farm machinery, and for the manufacturing of dairy and horticultural products.

Agricultural Specialists in Foreign Lands.

The School of Agriculture is well equipped to train men as experts in cotton and tobacco production in foreign lands.

The School of Agriculture is equipped to train men in the fields of:

1. Agricultural Engineering.
2. Animal Production.
3. Dairying.
4. Entomology.
5. Field Crops and Plant Breeding.
6. Game Management.
7. Olericulture and Floriculture.
8. Plant Pathology.
9. Pomology.
10. Poultry Science.
11. Soils and Fertilizers.

The following subjects are suggested as junior and senior electives for students specializing in the various fields of agriculture:

1. Agricultural Engineering.

Junior Year

Majors, Agr. Eng. 135, 145, 155, 218.
English, 130, 160, 254.
Electives, F. C. 210, Physics 101, Math. 103.

Senior Year

Majors, Agr. Eng. 147, 250, 335, 360, 365.
Science, Zool. 201.
Electives, A. H. 204, 209; Soils 265, C. E. 103, Agr. Econ. 261, Bot. 206, Hort. 209.

2. Animal Production.

Junior Year

Majors, A. H. 201, 203, 204, 205, 206, 210.
Science, Zool. 201, 202.
English, 103, 160.
Electives, Agr. Eng. 147, F. C. 205, Econ. 212.

Senior Year

Majors, A. H. 202, 204, 207, 210, 211, 219, 220.
Science, Chem. 240, 341, 344.
Electives, Agr. Eng. 135, 250; Soils 315, Agr. Econ. 261, 363, 367.

3. Dairying.

Junior Year

Majors, A. H. 203, 212, 213, 216, 217, 222, 223.
English, 103, 160.
Electives, Bot. 203, Econ. 201.

Senior Year

Majors, A. H. 210, 214, 215, 219, 220, 301.
Science, Chem. 240, 245.
Electives, Econ. 212, Agr. Econ. 265, 268, 367, Bot. 302.

4. Entomology.

Junior Year

Majors, Zool 202, 203, 208, 310.
English, 130, 160.
Electives, F. C. 334, Hort. 205, Bot. 204, M. L. 101.

Senior Year

Majors, Zool. 201, 301, 304.
Electives, F. C. 210 or 215, Bot. 201 or 202, M. L. 102.

5. Field Crops and Plant Breeding.

Junior Year

Majors, F. C. 210, 215, 220, 305, 330, 334.
Science, Zool. 201, 202; Bot. 203.
English, 120, 160, 254.
Electives, Econ. 212, Soils 265, 310; Agr. Eng. 135, 145, 218, 250.

Senior Year

Majors, F. C. 201, 302 or 303, 332, 340, 350.
Electives, Bot. 202, 307, Eng. 254, Agr. Eng. 360, 365, Soils 315, Agr. Econ. 261, 262, 265.

6. Game Management.

Junior Year

Majors, Poul. 103, 303, 304, Zool. 201, 202.
Science, Bot. 203.
Electives, Bot. 204, 207, 210, 104, F. C. 201, For. 104, Zool. 203, 304.
English, Eng. 130, 150, 160.

Senior Year

Majors Poul. 301, 308, Zool 311, 312, 314.
Electives, Bot. 307, Econ. 338, F. C. 205, For. 204, 205, Zool. 207, 309.

7. Olericulture and Floriculture.

Junior Year

Majors, Hort. 102, 105, 201, 209, 210, 211, 229, and L. A. 203, 204.
Science, Bot. 202, 204, Zool. 201, 202.
English, 254.
Electives, Agr. Econ. 363, Chem. 245.

Senior Year

Hort. 212, 303, 304.
English, 160, 130.
Electives, Bot. 305, 306, Zool. 206, F. C. 345, Agr. Eng. 135, Soils 265, Agr. Econ. 261, 265.

8. Plant Pathology.

Junior Year

Majors, Bot. 201, 202, 203, 204, 303, 307.
Science, Chem. 221.
Electives, M. L. 101, Zool. 201, 202.

Senior Year

Majors, Bot. 205, 208, 301, 305, 306, 308.
English, 130, 160.
Electives, M. L. 102, Hort. 227, Econ. 212.

9. **Pomology.**

Junior Year

Majors, Hort. 102, 105, 201, 205, 209, 227, 229.
Science, Bot. 202, 204, 306, Zool. 201, 202.
English, 160, 254.
Electives, Agr. Econ. 363.

Senior Year

Majors, Hort. 206, 210, 301, 303, 304, and L. A. 203, 204.
English, 130.
Electives, F. C. 345, Agr. Eng. 135, Soils 265, Agr. Econ. 261, Bot. 203, 205, Chem. 245, Zool. 206.

10. **Poultry.**

Junior Year

Majors, Poul. 103, 201, 302, 303, 304.
English, 150, 160.
Science, Bot. 203, Zool. 201.

Senior Year

Poul., 208, 305, 306, 307.
Science, Zool. 207.

11. **Soils and Fertilizers.**

Junior Year

Majors, Soils 265, 270, 315, Geol. 230 or 281, Agr. Eng. 135.
English, 3 of the following: 120, 130, 160, 254.
Science, Chemistry 103 or 111, 112 and 113 or 114.
Electives, F. C. 210 or 215, Hort. 209 or Agr. Econ. 262.

Senior Year

Majors, Soils 320, 321, 350; Soils 310 and 319 or Bot. 203, 309.
Science, Chem. 103 or Bot. 307, Geol. 125 and Physics 101.
Electives, F. C. 210 or 215, Econ. 238 or Agr. Econ. 261.

CURRICULUM FOR AGRICULTURAL SPECIALISTS

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Composition and Rhetoric, Eng. 101	3	3	3
General Chem. 101, 103, and 105	4	4	4
General Botany, Bot. 101 and 102, or			
General Zoölogy, Zoöl. 101	4	4	0
Field Crops, F. C. 101	0	0	4
General Animal Husbandry, A. H. 101	0	3	3
General Horticulture, Hort. 101	0	0	3
General Poultry, Poul. 101	3	0	0
American Economic History, Hist. 101-A, or			
Mathematical Analysis, Math. 100	3	3	0
Military Science, Mil. 101, or			
Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	20	20	20

Sophomore Year

Farm Equipment, Agr. Eng. 130	3	0	0
Soil Geology, Soils 110	4	0	0
Soil Management, Soils 115	0	0	4
Dairying, A. H. 103	0	3	0
Animal Nutrition, A. H. 102	0	0	5
Introduction to Economics, Econ. 102	0	3	0
Agricultural Economics, Agr. Econ. 260	0	0	3
Agricultural Physics, Phys. 105	0	0	5
Animal Physiology, Zoöl. 201, or			
Plant Physiology, Bot. 209	3	3	0
Poultry Production, Poul. 202, or			
Cereals, F. C. 201	0	4	0
General Zoölogy, Zoöl. 101, or			
General Botany, Bot. 101-102	4	4	0
Organic Chemistry, Chem. 141	3	0	0
Military Science, Mil. 102, or			
World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Agricultural Major	6	6	6
English	3	3	3
Electives	7	7	7
	16	16	16

Senior Year

Agricultural Major	6	6	6
Science	3	3	3
Electives	7	7	7
	16	16	16

AGRICULTURAL ECONOMICS

Until recently agriculture has afforded individuals simply an occupation with little or no opportunity for a professional career. Today, however, agriculture is a vast commercial industry, and provides many opportunities for the active and well-trained individual. Positions in this field are as truly professional as those found in any other industry. To fill the positions normally available, however, students must pursue a definite course of instruction. It is the object of the agricultural economics curriculum, shown on the accompanying page, to supply this instruction. The first two years of the curriculum are devoted largely to fundamental sciences and to the technical agricultural subjects, such as Poultry, Agronomy, Horticulture, and Animal Husbandry. Beginning with the junior year the opportunity is given the student to specialize in agricultural economics, while the senior year is devoted almost exclusively to courses in this field.

It is not possible to enumerate in this connection all of the positions which are commonly open to the graduates in Agricultural Economics. However, the following is presented as an indication of the types:

Junior Agricultural Economist. A position as a Junior Agricultural Economist involves research in Agricultural Economics. Such positions are usually available in the governmental departments such as United States Department of Agriculture and in various State institutions.

Farm Manager. There is a growing demand for men who have had practical farm experience and who have special training in farm organization and management. This field is practically a new one, and there have been many requests for men with special training in farm management.

County Agent. The growing importance of marketing of agricultural products and the need for better organization of farms has given rise to a strong demand for county agents who have had special training in Agricultural Economics.

Commercial Agricultural Agent. There are many commercial firms dealing in agricultural products, materials, or equipment intended for the farm. These concerns are usually anxious to obtain men who have had actual agricultural experience, and who, in addition, have had special training in agricultural economics, accounting, and statistics. This field is developing rapidly and offers a fine opportunity for students who wish to enter the purely commercial field.

Marketing Specialists. There is a growing demand for men who can manage cooperative marketing and other farmers' business associations.

College Instruction in Agricultural Economics and Farm Management

The Federal Government has recently passed an act appropriating a sum of money which amounts to $60,000 annually for each of the Experiment Stations in the country. This, together with the growing demand for teachers and investigators in Agricultural Economics, bids fair to absorb the increasing number of graduates specially trained for the work in this field.

Positions in Rural Sociology. There is a growing demand for specialists in the field of rural sociology. The positions which demand special training in rural sociology are: research in social science and home economics, specialists in rural organization, teachers of vocational agriculture and home economics, teachers of rural sociology, rural social workers, and other rural leaders and organization officials.

CURRICULUM IN AGRICULTURAL ECONOMICS

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Composition and Rhetoric, Eng. 101	3	3	3
General Botany, Bot. 101 and 102, or			
General Zoölogy, Zoöl. 101	4	4	0
American Economic History and Geography, Hist. 101	3	3	3
General Poultry, Poul. 101	3	0	0
General Field Crops, F. C. 101	0	0	4
General Horticulture, Hort. 101	0	0	3
General Animal Husbandry, A. H. 101	0	3	0
Military Science, Mil. 101, or			
Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
Mathematics, Math. 100, or			
European History, Hist. 201	3	3	0
	19	19	16

Sophomore Year

*English	3	3	3
General Botany, Bot. 101 and 102, or			
General Zoölogy, Zoöl. 101	4	4	0
General Chemistry, Chem. 101, 103, and 105	4	4	4
General Economics, Econ. 103	3	3	0
Business Organization, Econ. 210	0	3	0
Soil Geology, Soils 110	4	0	0
Soil Management, Soils 115	0	0	4
Animal Nutrition, A. H. 102	0	0	5
Military Science, Mil. 102, or			
World History, Hist. 104	2	2	2
Physical Education, P. E. 102	1	1	1
	21	20	19

Junior Year

Agricultural Economics, Agr. Econ. 260	0	3	0
Statistical Method, Econ. 212	3	0	0
Farm Management, I, Agr. Econ. 261	0	0	3
Accounting, Econ. 201 and Agr. Econ. 263	3	3	3
Marketing Methods, Econ. 215	3	3	0
Farm Marketing, Agr. Econ. 265	3	0	0
Grades, Standards, and Inspection, Agr. Econ. 268	0	3	0
Swine Production, A. H. 201	3	0	0
Cotton, F. C. 210 or			
Tobacco, F. C. 215	0	3	0
Legumes and Grasses, F. C. 205	0	0	4
Electives	3	3	8
	18	18	18

Senior Year

Money Credit and Banking, Econ. 221	3	3	0
Introductory Sociology, Soc. 102	3	0	0
Rural Sociology, Rural Soc. 302	0	3	0
Agricultural Coöperation, Agr. Econ. 363	0	0	3
Farm Management II, Agr. Econ. 362	0	0	3
Farmers' Movements, Rural Soc. 303	3	0	0
Marketing Methods and Problems, Agr. Econ. 366	0	3	0
Cotton or Tobacco Marketing, Agr. Econ. 368	3	0	0
Or	0	3	0
Business, Law, Econ. 211	0	3	0
Electives	4	4	10
	16	16	16

*A student whose record in English 101 was good will be required to take Business English (Eng. 201) in the first term, and elective courses in the second and third terms. A student whose record in English 101 was fair will be required to take Review of Composition and Rhetoric (Eng. 103) in the first term, Business English in the second term, and an elective course in the third term. A student whose record in English 101 was poor will be required to take English 103 in the first and second terms, and Business English in the third term.

FORESTRY

The aims of the curriculum in Forestry are: (1) to train young men for work in the technical and applied fields of forestry on public or private forest land; (2) to give special training in fields of research to advance the knowledge of the entire profession.

The profession of forestry is comparatively young in North Carolina. It began some thirty years ago and has made remarkable progress during its first quarter century of existence. The next decade promises more advancement and achievement than all of the past because the foundation has been laid and the building of the superstructure will depend upon the expertness of the builders. In the ranks of the builders are included the United States Forest Service; State Forest Departments in a large number of States; corporations and lumber companies; individual land owners and last, but by no means least, the farm woodlands.

Students completing the forestry course may look to the following fields of employment: United States Forest Service, the State Service, including not only North Carolina but especially the Southern States and any other State organizations, the lumber companies, timber-holding companies, corporations and individuals. The forestry program in the State of North Carolina is very materially strengthened by the presence of the national forests and the Appalachian forest experiment station. These will be of direct aid in the study of forest research problems, management problems and the organization and work of the National Forest Service.

Forest management aims to make a forest property a permanent producing unit. All forestry is now being built on this basis.

The field of forest utilization requires special courses dealing with the utilization of the products of the forest. During the third term of the senior year field studies of wood working industries, logging operations, paper and pulp mills and problems in forest management take up most of the time.

The field of silviculture deals with the problems of producing a forest, such as selection of species, methods of reproduction, cutting systems, etc. The work is becoming increasingly important as our virgin timber supply is depleted.

Research in forestry problems is being recognized by all agencies in the fields of Forestry. Men trained in research methods are needed in the government experiment stations, State experiment stations and private laboratories.

The first and second years of the curriculum include the necessary scientific and general educational background for the work in the third and fourth years. At the beginning of the third year the student has the option of electing one of the courses as set up in the curriculum. These include Utilization, Management, Silviculture, and Research.

CURRICULUM IN FORESTRY

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Drawing, C. E. 100	1	1	1
Botany, Bot. 101, 102, 204	4	4	3
Mathematics, Math. 101, 103	5	0	5
Composition and Rhetoric, Eng. 101	3	3	3
Physics, Phys. 105	0	5	0
Zoölogy and Etomology, Zoöl. 101, 204	4	4	3
Elementary Forestry, For. 101	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	21	21	19

Sophomore Year

Economics, Econ. 102, Agr. Econ. 260	0	3	3
Plant Physiology, Bot. 209	3	3	0
Dendrology, Bot. 207	3	0	3
Chemistry, Chem. 101, 103, and 105	4	4	4
Wood Technology, For. 102	0	3	0
Geology, Soils 110	4	0	0
Timber Physics, For. 103	0	0	3
Surveying F. C. E. 105	4	4	1
Topographical Drawing, C. E. 205	0	1	0
Mapping, C. E. 101	0	0	1
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	21	21	18

Junior Year

Mensuration I, II, III, For. 201, 202, 203	3	3	3
Silviculture I, II, For. 204, 205	3	3	0
English	3	3	3
Sociology, Soc. 102	0	0	3
Introduction to Psychology, Ed. 101	0	3	0
Electives	7	6	7
	16	15	16

Senior Year

Logging, For. 303	3	0	0
Diseases of Forest Trees, Bot. 208	3	0	0
Silviculture III, IV, For. 301, 302	3	3	0
Management, For. 306, 307	3	3	0
Seminar, For. 310	0	2	0
Products, For. 206, 207	0	3	3
Methods of Research in Forestry, For. 311	0	3	0
Electives	4	3	9
	16	17	12

Notes.

Students selecting the field of Forest Management will be required to take the following courses: For. 304, For. 309, and For. 312.

Students selecting the Utilization field will be required to take the following courses: For. 208, For. 308, For. 309, For. 304 and 305 are recommended as electives in junior and senior years.

Students selecting the Silvicultural field will be required to take the following courses: For. 305 and For. 313.

Students selecting the field of Research will be required to take the following courses: Econ. 212, For. 402.

LANDSCAPE ARCHITECTURE

Landscape Architecture is one of the arts of design, and is correctly classed with Architecture, Sculpture, and Painting.

The curriculum here offered is strictly undergraduate work, and while including training necessary for the landscape constructor as well as the landscape horticulturist or gardener, is designed to provide a broad and thorough foundation for the subsequent training necessary for the landscape artist or designer.

In addition to the professional curriculum here outlined, several individual courses are offered to the layman in landscape art, and these are consequently open to students in all schools. These courses should lead to a keener appreciation of the beauties of the landscape and a better acquaintance with the methods employed in arranging land for use and the accompanying landscape for enjoyment. These courses should not only enable the student to improve his home grounds in a tasteful way, but also constrain him to become a public benefactor in the preservation of our native landscape beauties.

For students in the professional course the following objectives are possibilities:

1. Landscape Horticulturist or Gardener.
2. Extension Specialist in Landscape Architecture.
3. Landscape Engineer or Constructor.
4. Landscape Architect or Designer.

Those who elect to prepare themselves to be landscape horticulturists will in their junior and senior years make use of electives and substitutions along the lines of propagation, soil management, soil fertility, and the culture of vegetable, fruit, and flowering crops, together with study of plant pests and methods of control. Those who elect to engage in Extension work will likewise study along the lines of educational methods as well. Those who prefer to be landscape engineers will take work in Engineering along the lines of building construction, grading and drainage, and in agriculture along the lines of soil fertility and management, together with economics and other work in Science and Business to meet their needs.

For the Landscape Architect or Designer subsequent training and professional practice should present an open door to the entire field of the Landscape Architect, the City Planner, or the Regional Designer.

CURRICULUM IN LANDSCAPE ARCHITECTURE

Freshman Year

Courses	Credits First Term	Second Term	Third Term
*Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Composition and Rhetoric, Eng. 101	3	3	3
Botany, General and Systematic, Bot. 101, 102, and 204	4	4	3
Engineering Drawing II, and Descriptive Geometry, M.E. 102, 103	3	3	3
Arboriculture, L. A. 106	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	18

Sophomore Year

**English	3	3	3
Botany, Bot. 209	3	3	0
Elements of Design, A.E. 102	2	2	2
Architectural Drawing, A.E. 105	1	1	1
Theory of Landscape Design, L.A., 218	0	0	5
Physical Geology, Geo. 120	3	0	0
Surveying I, C. E. 102	0	3	3
Plant Materials, L.A. 216	2	2	2
History of Landscape Design, L.A. 219	3	3	0
Military Science, Mil. 102 or World History, Hist. 104	2	2	2
Physical Training, P.E. 102	1	1	1
	20	20	19

Junior Year

Plant Materials: Annual and Herbaceous Plants, L.A. 217	0	0	2
Landscape Design I, L.A. 220	4	4	4
City Problems, L.A. 223	3	0	0
Economics, Econ. 102	0	3	0
Architectural Drawing II (A.E. 201)	1	1	1
Field Surveying, C.E. 207	1	1	1
Topographical Drawing, C.E. 208	0	1	0
Plant Ecology, Bot. 307	3	0	0
Zoölogy, Zoöl. 101	0	4	0
Masonary Construction, A.E. 104	0	0	2
Shades and Shadows, A.E. 105	2	0	0
History of Architecture, A.E. 206	2	2	2
Electives	3	3	6
	19	19	17

Senior Year

Planting Design, L.A. 221	3	3	3
Landscape Design II, L.A. 222	4	4	4
Landscape Construction, L.A. 225	2	2	2
Appreciation of Fine Arts, A.E. 209	3	3	3
Elective	3	3	3
	15	15	15

* Students who expect to specialize in Landscape Gardening are advised to elect Math. 100 and Chemistry 101 in place of Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103.

**A student whose record in English 101 was good will be required to take Business English (Eng. 201) in the first term, and elective courses in the second and third terms. A student whose record in English 101 was fair will be required to take Review of Composition and Rhetoric (Eng. 103) in the first term, Business English in the second term, and an elective course in the third term. A student whose record in English 101 was poor will be required to take English 103 in the first and second terms, and Business English in the third term.

SHORT COURSES IN AGRICULTURE

These courses are intended for men actually engaged in farming who feel the need for more knowledge, either of the general field of agriculture or any special type of farming. The courses are arranged so that the student may prepare himself for general farming in any part of the State, or for specialized farming, such as stock raising, dairying, truck farming, fruit growing, or poultry raising.

Students interested in courses of this type should write the Director of Instruction, School of Agriculture, for further information.

THE AGRICULTURAL EXPERIMENT STATION

The North Carolina Agricultural Experiment Station was established originally as a division of the State Department of Agriculture in accordance with an act of the General Assembly of 1877. Its work was greatly promoted by an act of Congress of 1887, known as the Hatch Act, which contributed a definite sum to each State for the purpose of making investigations in agriculture. The funds for the Experiment Station were further supplemented by an act of Congress of 1906, known as the Adams Act, and again the same way by an act of Congress of 1925, known as the Purnell Act. Under the requirements of the Hatch Act the Station became a department of the College.

The Agricultural Experiment Station embraces a central farm located at the College and a corps of trained investigators who devote their time and attention to solving the more important problems in soils, crops, animal industry, dairying, horticulture, poultry, plant diseases, and entomology, rural sociology, and agricultural economics.

Some one hundred and ninety different projects have been approved and are being investigated by these workers.

"The agricultural research of the College and Experiment Station have been materially strengthened through the inauguration of plans whereby teachers in agriculture and the biological sciences have been given some time to do research. This has been definitely organized and is now administered under the Experiment Station, making it possible to coordinate related research work, and making possible closer coöperation between the teaching and research group."

Six branch Experiment Stations of the State Department of Agriculture are used coöperatively with the College for work in the field on the different soils and under the different climatic conditions of the State.

The Station conducts a large correspondence with farmers and others concerning agricultural matters, and it takes pleasure in receiving and answering questions. The Agricultural Experiment Station is always glad to welcome visitors and to show them the work in progress.

The purposes of the Agricultural Experiment Station are:

To carry on experiments for the improvement of agriculture which will be of service to the farmers and to the agricultural teachers and extension workers;

To demonstrate improved methods of agriculture to the farmers of the State; and

To publish bulletions relating to agriculture, embodying the results of experiments, and to distribute them to the people of the State, thereby furthering the cause of agricultural progress.

CO-OPERATIVE AGRICULTURAL EXTENSION WORK

The Agricultural Extension Service of the College is conducted in coöperation with the State and the United States Department of Agriculture and the various counties of the State. The work is supported by Federal funds derived from the Smith-Lever Act, from State appropriations which supplement the Smith-Lever Fund, and from county funds. The purposes of the Agricultural Extension Service are: (1) To carry new agricultural information and good practices to the farmers and farm women of the State through the County Agricultural and Home Demonstration Agents; (2) To conduct agricultural clubs for the boys and girls of the State, in which the young people are taught to grow crops and rear animals according to the teachings of modern agriculture; (3) To publish monthly letters and bulletins for the aid of extension workers and for the benefit of farmers; (4) To organize club schools during the summer, at which the members are given two or three days of technical instruction. In addition to these club schools there is also held at State College a short course for members of all clubs.

COLLEGE EXTENSION COURSES IN AGRICULTURE

General information about College extension and correspondence courses may be found elsewhere in this catalog, and bulletins giving detailed information are issued from time to time.

THE SCHOOL OF EDUCATION

THOMAS EVERETT BROWNE, *Dean*

There is a very definite function the school of Education can perform in the preparation of high school teachers to fit into the distinctly rural and industrial situations in North Carolina. The objectives of the School of Education are as follows:

To prepare principals and teachers for the rural and urban high schools, especially those preparing to teach subjects which relate themselves peculiarly to rural life.

To train teachers of vocational agriculture to meet the growing demand in the State for men to teach agriculture in the rural high schools.

To prepare persons to teach industrial arts in the junior and senior high schools, and to meet the demands for persons to help promote the vocational education program in trade and industrial education.

To train teachers and counselors in vocational guidance.

To prepare teachers and directors for the rapidly developing field of Physical Education with a view to remedying physical defects and to promote wholesome recreation and sports.

To give women advantage of the broad opportunities offered by the teaching, research, and extension services suitable to their needs.

Women are now permitted to register at State College as regular students on the same basis as men. Liberal coöperative arrangements are made with other schools of the college so that students registering in the School of Education may select the courses of their special interest, with the approval of their advisor. Since the School of Education is designed to meet the professional demands of teachers in the secondary schools, its opportunities should appeal particularly to that large group of women teaching in the high schools of the State.

AGRICULTURAL EDUCATION

The preparation of men to occupy positions as teachers of vocational agriculture in the high schools of the State, qualifying under the provisions of the Smith-Hughes Law, has become one of the major activities of the College. State College is the designated teacher-training institution for teachers of agriculture in the white schools. Men who are capable of meeting the complicated situations in which they find themselves in the rural schools require very specific and definite training for their jobs.

The program for the preparation of teachers of agriculture provides for the participation of the students in as many of the activities of agricultural teaching as is practicable, especially in organizing and conducting evening classes, and in carrying on community work and supervised practice.

Provision is made for seniors to teach under the supervision of the staff in agricultural education, assisted by the regular teachers of agriculture with whom they are carrying on their practice.

The Department of Agricultural Education is conducting definite research studies in connection with the program in vocational agricultural education. The results of this research are used to make more effective the program in teacher training.

As a service department for other schools, the School of Education will provide certain professional courses which may be elected by those preparing to enter the field of agricultural research or agricultural extension work.

RURAL SCHOOL PRINCIPALS AND TEACHERS

The rapid development of the consolidation movement in the rural school districts has created a demand for persons who are acquainted with the social and economic conditions of rural people. The rural school occupies a strategic position with reference to North Carolina's development. There are very definite social situations that are demanding organized effort. The rural school occupies the center of the community organization movement. The development of the rural sections, with their distinctive sociological and economic background, is dependent upon the proper type of rural organization. The principal and teachers in this community school must assume the leadership in this movement. For principal and teachers to measure up to the possibilities and opportunities of this distinctively rural development they must have specific training in rural sociology, rural social problems, rural economics, and rural community organizations.

The School of Education is making a positive effort to train people for this particular situation. Liberal coöperative arrangements have been made with other schools and departments so that teachers preparing for the rural field take courses in the natural sciences and in the social sciences, designed to equip them for meeting the problems of the rural community.

Adequate provision will be made for the training of principals for the consolidated rural schools as well as for the preparing of teachers of high school subjects, with teaching combinations to conform to the requirements of the Teacher-Training Division of the State Department of Public Instruction.

SCIENCE TEACHERS

The reorganization of the high schools has given to science a much larger place in the high school curriculum. The larger place given science has greatly accentuated the demand for trained science teachers. State College, with its well-equipped laboratories in the physical sciences and its highly trained faculty, is adequately prepared to give the subject-matter courses for science teachers. The School of Education supplements the technical courses in science with professional courses especially designed to prepare persons to teach science to students of secondary grade. The courses in the teaching of the various high school science courses emphasize the most modern techniques in science teaching, and also present to the prospective teachers actual experience in using simple, easily attained laboratory and illustrative materials. These courses are of tremendous value to teachers who are employed in rural schools with small allowances for materials and supplies.

TEACHERS AND COUNSELORS OF VOCATIONAL GUIDANCE

The increasing interest in vocational guidance is making demands for teachers who are prepared to participate in organization phases. Effective vocational guidance is dependent upon hearty coöperation of all teachers in the school system. There is a growing need for leaders who are familiar with subject-matter, tests and measurements, school objectives and practices, and the require-

ments of various occupations, trades, and professions. One who wishes to undertake this work as a leader must realize the importance of the collection and preparation of materials for the use of teachers and pupils and the qualifications essential for counseling individuals and groups. Members of the faculty of the School of Education will be glad to discuss problems with students desiring to enter this field.

DRAMATICS, MUSIC, AND PHYSICAL EDUCATION

As a means of establishing desirable contacts in school and community and developing unity and coöperation some ability in dramatics, music or physical education is exceedingly valuable. Because of this and the personal pleasure which may accrue to the individual student, attention is directed to the band, orchestra and glee club which provide training along musical lines, and to the Red Masquers, student dramatic club.

In Physical Education a limited number of courses are available at present. Plans are being worked on, however, to effect a material expansion in this field of work and to provide a well-rounded comprehensive program in modern health and sports education.

REQUIREMENTS FOR GRADUATION

The requirement for graduation in the School of Education is the satisfactory completion of one of the curricula with the number of points equal to the number of term credits required, which in no case is less than 198.

Students who enter with advanced standing are allowed one point for each term credit accepted on transfer.

All students in Education will be required to take at least twenty-seven (27) term credits in Education, eighteen (18) term credits in Language, eight (8) term credits in Science, nine (9) term credits in Social Science, twelve (12) term credits in Military or the alternative, and six (6) in Physical Education. The number of credits required for graduation are to be chosen from the technical subjects listed in the several curricula and from the electives.

DEGREES

Students completing the curriculum in Agricultural Education will be granted the degree of Bachelor of Science in Agricultural Education. Students completing all other curricula in the School of Education will be granted the degree of Bachelor of Science in Education.

CURRICULA

The following curricula are offered in the School of Education. For specific information about any of the curricula write to the person whose name appears after the curriculum, all of whom may be adressed at State College Station, Raleigh.

1. Curriculum for Teachers of Agriculture (Professor L. E. Cook); 2. Curriculum for Teachers of Industrial Arts (Professor E. W. Boshart); 3. Curriculum for High School Teachers (Professor M. F. Showalter).

‡CURRICULUM FOR TEACHERS OF AGRICULTURE

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Composition and Rhetoric, Eng. 101	3	3	3
General Botany, Bot. 101 and 102, or General Zoölogy, Zoöl. 101	4	4	0
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
**Options:			
General Poultry, Poul. 101	3	0	0
General Animal Husbandry, A. H. 101	0	3	3
General Horticulture, Hort. 101	0	0	3
Field Crops, F. C. 101	0	0	4
Commercial Vegetable Gardening, Hort. 209	0	0	3
American Economic History, Hist. 101-A	3	3	0
Occupations, Ed. 103	0	3	0
Farm Equipment, Agr. Eng. 130	3	0	0
Terracing and Drainage, Agr. Eng. 135	0	0	3
Dairying, A. H. 103	3	0	0
	19	19	17 or 20

Sophomore Year

General Chemistry, Chem. 101, 103, 105	4	4	4
Soil Geology, Soils 110	4	0	0
Soil Management, Agron. 115	0	0	4
Animal Nutrition, A. H. 102	0	0	5
Agricultural Physics, Phys. 106	0	0	5
Animal Physiology, Zoöl. 103, or Plant Physiology, Bot. 103	3	3	0
Poultry Production, Poul. 202, or Cereals, F. C. 201	0	4	0
General Zoölogy, Zoöl. 101, or General Botany, Bot. 101-102	4	4	0
Physical Training, P. E. 102	1	1	1
Military Science, or World History, Hist. 104	2	2	2
	18	18	21

Junior Year

English or Modern Language	3	0	3
Education, Ed. 203, 205	3	3	3
Teaching Farm Shop Work, Agr. Eng. 217	3	3	0
General Economics, Econ. 103	3	3	0
Agricultural Economics, Econ. 260	0	0	3
Soil Fertility, Soils 265,	3	0	0
Fertilizers, Soils 310	0	3	0
Rural Sociology, Rural Soc. 302	0	3	0
*Diseases of Field Crops, Bot. 201	3	0	0
Economic Entomology, Zoöl. 202	0	0	3
**Electives	0	3	6
	18	18	18

Senior Year

English or Modern Language	0	0	3
Materials and Methods in Teaching Agriculture, Ed. 312	0	5	0
Secondary Education in Agriculture, Ed. 326	0	0	3
Principles of Teaching, Ed. 306	3	0	0
Observation and Directed Teaching, Ed. 308	0	5	0
Methods of Teaching Agriculture, Ed. 307	5	0	0
Evening Classes and Community Work, Ed. 311	0	5	0
Diseases of Farm Animals, A. H. 219	0	0	3
Farm Marketing, Econ. 265	3	0	0
Community Organization, Rural Soc. 305	0	0	3
**Electives	6	0	3
	17	15	15

‡Required for graduation: 210 credits and 210 points.
*Diseases of Fruit and Vegetable Crops, Bot. 202 may be substituted for Bot. 201.
**Options and electives must be chosen with the approval of the adviser.

‡CURRICULUM FOR TEACHERS OF INDUSTRIAL ARTS

The preparation of qualified teachers of Industrial Arts is essential as our supply is less than the demand which makes it necessary for us to seek candidates at institutions in other states for positions in North Carolina. Teachers of Shop practice and Drawing must have thorough preparation in subject-matter, principles of education, methods, class management, and practice teaching.

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Rhetoric and Composition, Eng. 101	3	3	3
Science (Chem. 101, 103, 105 or Physics 101)	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Industrial Arts, Ed. 106	3	3	3
Occupations, Ed. 103	3	0	0
Psychology, Ed. 101	0	3	0
Military Science, Mil. 101 or Human Relations, Soc. 101	2	2	2
Physical Education, P. E. 101	1	1	1
Electives	0	0	3
	19	19	19

Sophomore Year

Business English, Eng. 120, Technical Writing, Eng. 130, Public Speaking, Eng. 160	3	3	3
Science (Physics 101 or Chemistry 101, 103, 105)	4	4	4
American Economic History, Hist. 102	5	0	0
Commercial Geography, Hist. 103	0	5	0
Introduction to Business, Econ. 101	0	0	5
Project Design, Ed. 232, A and B	0	3	3
Architectural Drawing, A. E. 105	1	1	1
Military Science, Mil. 102 or World History, Hist. 104	2	2	2
Physical Education, P. E. 102	1	1	1
*Elective Shop Work	3	0	0
	19	19	19

Junior Year

Educational Psychology, Ed. 203	3	3	0
General Sociology, Soc. 103	3	3	0
Introduction to Economics, Econ. 102	3	0	0
Business Law, Econ. 211	0	0	3
Vocational Education, Ed. 321	0	3	0
Visual Aids, Ed. 208	0	0	3
Practices in Industrial Arts Teaching, Ed. 233 A, B	0	3	3
Furniture Designs and Rod Making, M. E. 205	3	3	3
*Elective	6	3	6
	18	18	18

Senior Year

Principles and Technique of Teaching in the Secondary School, Ed. 332	3	0	0
Secondary Education, Ed. 329	0	0	3
Vocational Guidance, Ed. 320	0	0	3
Methods in Industrial Arts Teaching, Ed. 322	4	0	0
Observation and Directed Teaching, Ed. 344	0	5	0
*Elective	11	9	12
	18	14	18

‡Required for graduation: 218 credits and 218 points.

*Elective Shop Work should be taken in fields available as in Textiles, Woodshop, Machine Shop, and Foundry.

CURRICULUM FOR HIGH SCHOOL TEACHERS

REQUIREMENTS FOR GRADUATION.

I. Completion of the core curriculum.

II. Completion of the work in two of the following options:

1. General and Biological Science.
2. General and Physical Science.
3. Mathematics.
4. History.
5. English.
6. French.

III. At least 198 term-credits and 198 points.

IV. One year in residence during which at least 36 term credits are earned.

FRESHMAN YEAR

Core Curriculum

	Credits		
	First Term	*Second Term*	*Third Term*
Rhetoric and Composition, Eng. 101	3	3	3
American Economic History and Geography, Hist. 101	3	3	3
General Botany, Bot. 101, 102, or General Zoölogy, Zoöl. 101	4	4	0
Introduction to Psychology, Ed. 101	0	0	3
*Military Science, Mil. 101 (Men)	2	2	2
*Physical Training, P. E. 101 (Men)	1	1	1
	13	13	12

Options

TEACHERS OF SCIENCE

General Physics, Phys. 101	4	4	4
Elective	0	0	3
	17	17	19

TEACHERS OF MATHEMATICS

Elective	5	5	6
	18	18	18

TEACHERS OF HISTORY

World History, Hist. 104	2	2	2
Elective	3	3	4
	18	18	18

TEACHERS OF ENGLISH

Elective	5	5	6
	18	18	18

TEACHERS OF FRENCH

[1]French Prose, M. L. 104	3	3	3
Elective	2	2	3
	18	18	18

*Students who do not take this work are required to take other work in its place.
[1]For students who present 2 units of entrance credit in French.

SOPHOMORE YEAR

Core Curriculum

	Credits		
	First Term	*Second Term*	*Third Term*
[1]Elective English	3	3	3
[2]General Economics, Econ. 103 or Government, Hist. 209, or General Sociology, Soc. 103, and elective Economics, History, or Sociology	3	3	3
*Military Science, Mil. 102 (Men)	2	2	2
*Physical Training, P. E. 102 (Men)	1	1	1
	9	9	9

Options

Teachers of Science

General Botany, Bot. 101, 102, or General Zoölogy, Zoöl. 101	4	4	0
General Chemistry, Chem. 101, 103, 105	4	4	4
Descriptive Astronomy, Phys. 107	0	0	3
Elective	0	0	3
	17	17	19

Teachers of Mathematics

Algebra, Solid Geometry, Trigonometry, Math. 101, 102, 103	5	5	5
Elective	4	4	4
	18	18	18

Teachers of History

Social and Economic History of Modern Europe, Hist. 201	3	3	3
General Economics, Econ. 103, or Government, Hist. 209, or General Sociology, Soc. 103, and elective Economics, History or Sociology	3	3	3
Elective	3	3	3
	18	18	18

Teachers of English

Survey of English Literature, Eng. 220	3	3	3
Elective	6	6	6
	18	18	18

Teachers of French

Elective French	3	3	3
Elective	6	6	6
	18	18	18

[1]To be chosen from Eng. 120, 130, 150, 160, 202s, 251, 253, 254, 319, 320, 352, 361, 363

[2]Teachers of History are required to take two of these sequences in the sophomore year, and the remaining one in the junior year. At least one term of Economics is required of all students. Students taking only one term will elect Introduction to Economics, Econ. 102.

*Students who do not take this work are required to take other work in its place.

JUNIOR YEAR

Core Curriculum

	First Term	*Second Term*	*Third Term*
		CREDITS	
Educational Psychology, Ed. 203	3	3	0
Practices and Problems in Secondary Education, Ed. 332	0	0	3
	3	3	3

Options

TEACHERS OF SCIENCE

Physical Geology, Historical Geology, and Physiography, Geol. 120, 125, 205	3	3	3
[1]Elective Botany or Zoology, or			
[2]Elective Chemistry or Physics	3	3	3
[3]Elective	6-9	6-9	4-7
	15-18	15-18	15-18

TEACHERS OF MATHEMATICS

Analytical Geometry, Math. 201	5	0	0
Elective Mathematics or Surveying	0	3-5	0-5
The Teaching of Mathematics, Ed. 341	0	0	5
Elective	7-10	7-12	2-10
	15-18	15-18	15-18

TEACHERS OF HISTORY

U. S. History to 1860, U. S. History since 1860, and History of North Carolina, Hist. 301, 302, 303	3	3	3
General Economics, Econ. 103, or Government, Hist. 209, or General Sociology, Soc. 103, and Elective Economics, History or Sociology	3	3	3
Elective	6-9	6-9	4-7
	15-18	15-18	15-18

TEACHERS OF ENGLISH

Survey of American Literature, and Contemporary American Literature, Eng. 221, 337	3	3	3
The Teaching of English, Ed. 340	0	0	5
Elective	9-12	9-12	4-7
	15-18	15-18	15-18

TEACHERS OF FRENCH

Elective French	3	3	3
Elective	9-12	9-12	9-12
	15-18	15-18	15-18

[1]For teachers of General and Biological Science. Students electing one of these in the junior year will elect the other in the senior year.

[2]For teachers of General and Physical Science. Students electing one of these in the junior year will elect the other in the senior year.

[3]In the junior and senior years a total of 5 credits must be elected in Laboratory Practice in Science, Ed. 338, by students taking both the biological and physical science options.

SENIOR YEAR

Core Curriculum

	Credits		
	First Term	*Second Term*	*Third Term*
History and Principles of Physical Education, P. E. 110	2	0	0
*Rural Physical Training and Recreation, P. E. 117 (Men)	0	0	3
Field Work in Secondary Education, Ed. 333	2	0	0
[1]Elective Education	0	0-5	3
	4	0-5	6

Options

Teachers of Science

[2]Elective Botany or Zoölogy, or			
[3]Elective Chemistry or Physics	3	3	3
The Teaching of Science, Ed. 337	5	0	0
[4]Elective	3-6	7-15	6-9
	15-18	15-18	15-18

Teachers of Mathematics

Elective	11-14	10-18	9-12
	15-18	15-18	15-18

Teachers of History

Advanced U. S. and N. C. History, Hist. 307	3	0	3
The Teaching of History, Ed. 342	5	0	0
Elective	3-6	10-18	6-9
	15-18	15-18	15-18

Teachers of English

Elective English	3	3	3
Elective	8-11	7-15	6-9
	15-18	15-18	15-18

Teachers of French

The Teaching of French, Ed. 381	0	0	5
Elective	11-14	10-18	4-7
	15-18	15-18	15-18

*Students who do not take this course are required to take another course in its place.

[1]Observation and Directed Teaching, Ed. 334, should be elected by those students who desire a Class A certificate to teach in North Carolina high schools.

[2]For teachers of General and Biological Science. Students electing one of these in the junior year will elect the other in the senior year.

[3]For teachers of General and Physical Science. Students electing one of these in the junior year will elect the other in the senior year.

[4]In the junior and senior years a total of 5 credits must be elected in Laboratory Practice in Science, Ed. 338, by students taking both the biological and physical science options.

THE SCHOOL OF ENGINEERING

WALLACE CARL RIDDICK, *Dean*

HARRY TUCKER, *Director of Engineering Experiment Station*

ORGANIZATION

The School of Engineering of the North Carolina State College of Agriculture and Engineering embraces Aeronautical, Architectural, Ceramic, Chemical, Civil, Construction, Electrical, Highway, Industrial, Mechanical, Mining, and Sanitary Engineering and the Engineering Experiment Station.

State College has progressively increased its emphasis on engineering education for the youth of the State. The objectives of the School of Engineering are defined, and its threefold program of instruction, research, and extension established. The instruction in engineering has been improved and advanced, important research is in progress with its stimulating effect upon teachers and students, and the Extension Service is fulfilling its promise of usefulness.

The reasons for the establishment of the College and the support of the General Assembly indicate that this is the technical institution of the State for Engineering as well as for Agricultural education. The State has already made large investments for buildings and equipment for engineering here.

Measured by its facilities for instruction, its shops and laboratories, its technical and industrial equipment, the personnel of its force for teaching and investigation, and the number of students, the School of Engineering is substantially equipped to render, and is rendering, great service in engineering education and in the State's industrial development.

The location of the College is particularly favorable for the study of engineering. Raleigh, besides being the Capital and having the several State Departments, the State Highway Commission, the State Board of Health, and other important State institutions, is a rapidly growing city, marked by modern developments in residential, commercial, and municipal construction. This local building and engineering goes on the year round, and affords excellent opportunities for observation and study. There are in the vicinity commercial chemical works, woodworking mills, railway shops, machine shops, airport, and manufacturing industries.

Raleigh is also a center from which electric power is distributed to a large section of the State. A transformer and meter substation adjoins the campus, and from it high-tension lines radiate in four directions. Hydro-electric and steam-electric plants are within easy reach on the Cape Fear River. The important systems of highways centering in Raleigh are exceptionally valuable for the observation and study of the construction, use, and maintenance of roads.

THE PURPOSE OF THE SCHOOL

The purpose of the School of Engineering is threefold: (1) to educate men for professional service in Aeronautical, Architectural, Ceramic, Chemical, Civil, Construction, Electrical, Highway, Industrial, Mechanical, Mining, and Sanitary Engineering, and at the same time to equip them to participate in commercial and public affairs and to develop their capacities for intelligent leadership; (2) to

aid in the development of our commerce and industry through research and experimentation, to investigate natural resources and demonstrate their value to the people of the State; (3) to coöperate with private companies, municipalities, and public authorities for the purpose of improving the public utilities, and with commercial and industrial organizations through scientific research for increasing technical skill, improving the value of manufactured products, and eliminating waste.

In order to make effective these purposes the School of Engineering offers instruction in Aeronautical, Architectural, Ceramic, Chemical, Civil, Construction, Electrical, Highway, Industrial, Mechanical, Mining, and Sanitary Engineering and maintains the Engineering Experiment Station and the Extension Service. The courses of instruction are grouped into programs of studies or curricula, definitely aimed to prepare for professional service, as:

Engineers in Aviation.

Architect, Architectural and Structural Engineers.

Ceramic Engineers and Technologists and Managers in the Ceramic Industry.

Construction Engineers.

Engineers and Managers in Chemical Industries and in the Vegetable Oil Industry.

Engineers in Professional Practice and as Consulting Engineers.

Engineers in Hydro-Electric Developments.

Engineers in Electrical Manufacturing and Contracting and in Central Electric Station and Telephone Service, in the Maintenance and Operation of Electrically-driven Mill Equipment, in Lighting and Illumination, and in Railway Signaling.

Engineers in the Construction, Maintenance, and Operation of Steam and Electrical Railways.

Engineers in the Design and Manufacture of Machinery, in the Operation of Shops, and in the Furniture Industry.

Highway Engineers.

Industrial Engineers and Engineers in industries generally.

Mining Engineering and Metallurgists.

Municipal Engineers, Sanitary Engineers, City Managers, and Engineers in Public Utility and Health Services.

Sales Engineers.

Research Engineers.

CURRICULA

All of the curricula contain courses of general educational value for the purpose of preparing students for those activities which constitute the duties of citizenship in a democracy. However, the curricula are primarily technical and practical, and designed to prepare young men for professional practice and for definite vocations as well as for leadership in the industrial advancement of the State.

The instruction is such as will foster the individual talent, imagination, and initiative of students and instill in them ideals of accomplishment, service, and good citizenship, while assuring to them that scientific education and practical training which will prepare them for professional service and leadership in

engineering and in industry. In this way the School of Engineering aids in the advancement of commerce and industry and furthers the development and economic utilization of the State's resources for the general welfare.

All the engineering curricula emphasize thoroughness in the study of English and of the sciences—Mathematics, Physics, and Chemistry—with a thorough drill in the application of fundamental principles to engineering and industrial problems. Engineering is taught as a profession, and the students come to realize that it is both honorable and learned, and that it offers exceptional opportunities for service.

The several engineering curricula are only slightly differentiated in the freshman and sophomore years, in which the students study English, Mathematics, Drawing, Shop Work, Physics, and Chemistry. In the junior and senior years the students are directed definitely to the professional aims in the carefully considered and well-balanced curricula in Architectural, Ceramic, Chemical, Civil, Construction, Electrical, Highway, Industrial, Mechanical, Mining, and Sanitary Engineering. Arrangements have been made for instruction in the design and manufacture of furniture and in the manufacture of vegetable oils.

REQUIREMENT OF SUMMER WORK

At least six weeks of summer employment under the direction of the School of Engineering, preferably in the summer following the junior year, is an additional requirement for graduation in Engineering.

The purpose of this is to have every student before graduation get the valuable experience of actual work with responsibility and pay in the field of his vocation. Departmental advisers will aid in securing summer employment and will supervise and direct it.

INSPECTION TRIPS

In order to familiarize himself with the practice of his profession, each senior in Engineering is required as a part of his curriculum to make the departmental inspection trips. None will be excused except for grave reasons.

ENGINEERING CURRICULA FOR UNIVERSITY AND COLLEGE GRADUATES

Selected courses leading to the degree "Bachelor of Science" in Engineering are offered to graduates of universities and standard colleges. These are arranged in accordance with the vocational aim of the individual student, and in the light of credits presented from the institution from which the student has been graduated, subject to the approval of his adviser and the director of instruction. In cases where the student presents enough credits which may be used for courses required in his curriculum he may be graduated with a B.S. degree in one year. In no case should it take more than two years to complete the work for his B.S. degree.

SHORT COURSE FOR ELECTRICAL METERMEN

A school for electrical metermen, lasting one week, is conducted during the second term. The work consists of lectures by meter experts and members of

the faculty, demonstrations of metering apparatus and inspection, calibration and adjustments of meters of all types. The Electrical Engineering laboratories are well equipped with rotating standards of all makes, voltage regulators, phase shifters, load boxes, and phantom loads, and a large collection of watt-hour meters.

DEGREES

Upon the satisfactory completion of one of the curricula in engineering the degree of Bachelor of Science in Engineering is conferred.

The degree of Master of Science in Engineering is offered for the satisfactory completion of one year of graduate study in residence. Candidates for the degree of Master of Science in Engineering enter and are enrolled as graduate students in the Graduate School.

The professional degree of Architectural Engineer, Ceramic Engineer, Chemical Engineer, Civil Engineer, Electrical Engineer, Mechanical Engineer, or Mining Engineer may be conferred upon graduates after three years professional practice in responsible charge of important work, and upon the acceptance of a thesis on a subject related to the practice in which the applicant has been engaged.

ADMISSION

Each applicant for admission must present evidence that he has satisfactorily completed a four-year curriculum of not less than fifteen units in a secondary school which is approved by the State Department of Education.

Each applicant for admission must be at least sixteen years old and must submit fifteen units of credits from an accredited high school. Of these units, 8.5 are in specified subjects and 6.5 in elective subjects.

ADVANCED STANDING

Students who have attended colleges of approved standing will be given appropriate credit for work completed there, upon the presentation of the proper certificate to the Dean of the School of Engineering, who will determine the credits for the curriculum which the student wishes to take.

REQUIREMENTS FOR GRADUATION

The requirements for graduation in Engineering are the satisfactory completion of all the courses in one of the prescribed curricula (see tabulations of curricula on the pages following), a total of not less than 222 term credits, and also not less than 222 points calculated under the point system.

Of the minimum of 222 term credits required for graduation in Engineering 114 are common to all curricula, that is, 30 term credits in Mathematics, 18 in Language, 12 in Economics and Sociology, 12 in Chemistry, 15 in Physics, 9 in Mechanics, 12 in Military Training (or Social Science alternatives) and 6 in Physical Education.

Each of the curricula permits election of 18 term credits and contains not more than 96 term credits technical to Engineering of which not more than 66 are special technical.

ARCHITECTURAL ENGINEERING

The instruction in this curriculum is arranged mainly to lay a broad foundation for the subsequent professional life of its graduates. The curriculum is based on the belief that an architect should have an education in liberal studies, as well as a fundamental and technical knowledge; the other arts and sciences in their relation to architecture, and that his training in design should teach him to regard building construction as an expression of his art as well as a useful accomplishment.

Architecture is generally recognized as the first and greatest of the Fine Arts, and hence a wide sympathy with every form of culture is regarded as essential. The practice of the profession presents many aspects of an exacting and thoroughly scientific nature, and the training of the architect must combine those things which are useful with those that are purely ornamental. The aim is to train men for the practice of their profession, and the curriculum is designed so that a just relation and balance may be maintained between the practical and the æsthetic.

Facility in the technique of drawing is emphasized, and carefulness and exactitude are demanded in the treatment of the various fundamental problems of construction.

CURRICULUM IN ARCHITECTURAL ENGINEERING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Compositions, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	3	3
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus I and II, Math. 201, 202, 203	5	5	5
Business English, Technical Writing, *Public Speaking, Eng. 120, 130, 160, or †French I, M. L. 101	3	3	3
Physics, Phys. 104	5	5	5
Elements of Design, Shades and Shadows, Perspective, A. E. 101	3	3	3
Military Science, Mil. 102 or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Mechanics, C. E. 200	3	3	3
Graphic Statics, C. E. 209	1	0	0
Materials Testing Laboratory, H. E. 204	0	1	1
Economics, Accounting, Sociology, Econ. 102, 112, and Soc. 102	3	3	3
Masonry Construction, Plane Surveying, Building Sanitation, A. E. 104, C. E. 111, and A. E. 107	2	2	2
Architectural Design I, A. E. 202	3	3	3
Working Drawings, A. E. 203	3	0	0
History of Architecture, A. E. 206	2	2	2
‡Electives	0	3	3
	19	19	19

Summer requirement: six weeks industrial employment.

Senior Year

Strength of Materials and Reinforced Concrete, C. E. 203	3	3	3
Roofs and Bridges, C. E. 204	3	0	0
Business Law, Econ. 211	0	0	3
Architectural Design II, A. E. 204	2	2	2
Professional Practice, A. E. 205	2	2	2
Office Practice, A. E. 207	2	2	2
History of Ornament, A. E. 208	0	3	0
‡Electives	6	6	6
	18	18	18

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

CERAMIC ENGINEERING

Ceramic Engineering includes the different phases of engineering which have to do with the study of all the materials and the manufacture of products of the silicate or non-metallic industries. The non-metallic minerals compose over 90 per cent of the earth's surface and the industries based on them rank with the automobile and iron and steel industries in value of product. Principal among these products are those made of clay and minerals associated with clay, such as building brick, hollow tile, sewer pipe, refractories, wall and floor tile, table ware, pottery, electrical porcelain, chemical and sanitary stoneware, building glass, chemical glassware, enameled iron and steel, Portland and hydraulic cements, and limes.

North Carolina has enormous deposits of shale, clay, kaolin, feldspar, sand, and limestone, equal in quality to any in the United States, and with the introduction of modern processes and methods will produce in the future, quantities of ceramic products and adequately develop its ceramic industries.

The demand for ceramic engineers has far exceeded the supply for a number of years past, there being less than 100 Ceramic engineers graduated in the United States each year, and it is with the idea of supplying this demand and developing the latent resources of North Carolina that a four-year curriculum in Ceramic Engineering, leading to the degree of Bachelor of Science in Engineering, is offered.

The instruction in Ceramic Engineering is enriched by the intensive investigation of ceramic resources and manufactures now under way in connection with the Engineering Experiment Station. Students will have the great advantage of these investigations along with their other instruction.

Courses in advanced subjects for graduate students are offered in Advanced Refractories and Furnaces, Industrial Adaptability of Clays, Designing of Ceramic Equipment and Plants, Glazes and Colors, and Ceramic Research.

The curriculum in Ceramic Engineering contains fundamental courses and courses in Ceramic, Chemical, Civil, Electrical, and Mechanical Engineering, as well as Economics and Accounting, to provide for the general training in engineering with the particular study of Ceramic Engineering. The Ceramic Engineering courses consist of the theoretical and practical study of the mining, manufacturing, and testing ceramic products as well as the design of ceramic equipment and plants.

Graduates in Ceramic Engineering are employed in the Ceramic Industries as plant executives, research engineers, plant control engineers, sales engineers, product control engineers, plant designers and constructors, equipment manufacturers, consulting engineers, ceramic chemists, and technologists. Graduates of the department at State College, which now ranks fourth in registration in the United States, are successfully holding positions in practically all of these branches.

CURRICULUM IN CERAMIC ENGINEERING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Introductory Physical Chemistry, Chem. 103	3	3	3
Physics, Phys. 104	5	5	5
Engineering Geology, Geol. 201	3	0	0
Ceramic Materials, Cer. E. 103	0	3	0
Ceramic Processes, Cer. E. 104	0	0	3
Mechanical Drawing, M. E. 107	1	1	1
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Mechanics, C. E. 200	3	3	3
*Public Speaking, Business English, Technical Writing Eng. 160, 120, 130, or †French I, M. L. 101	3	3	3
Dryers and Drying, Cer. E. 208	3	0	0
Kilns and Burning, Cer. E. 213	0	3	0
Ceramic Calculations, Cer. E. 209	0	0	3
Ceramic Products, Cer. E. 212	0	0	2
Heat Engines III, M. E. 201	3	3	0
Mechanical Laboratory II, M. E. 202	1	1	1
Plane Surveying, C. E. 111	0	2	0
Business Law, Econ. 211	0	0	3
Electives	3	3	3
	16	18	18

Summer requirement: six weeks industrial employment.

Senior Year

Refractories, Cer. E. 301	0	0	3
Ceramic Laboratory Cer. E. 300	3	3	3
Cermic Designing, Cer. E. 303	0	4	4
Enamels and Enameling, Cer. E. 210	0	3	0
Bodies, Glazes, and Colors, Cer. E. 207	3	0	0
Elements of Electrical Engineering, E. E. 102	0	3	3
Pyrometry, Cer. E. 214	1	0	0
Strength of Materials, M. E. 208	3	0	0
Economics, Accounting, Psychology, Econ. 102, 112, and Ed. 269	3	3	3
‡Electives	3	3	3
	16	19	19

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

CHEMICAL ENGINEERING

North Carolina is rapidly becoming the industrial and manufacturing center of the South. A large per cent of the total manufactured products of the State is chemical, with an annual valuation of over two hundred million dollars. Some of the largest chemical industries of the United States are located in North Carolina. Many other industries employ chemical engineering processes and principles. The municipalities are awake to the fact that chemical engineers are necessary to safe-guard the healthfulness of the community by proper design and supervision of the water supplies. Competition is forcing the industries to abandon rule-of-thumb methods and to seek men trained in the principles of chemical engineering for supervision and exact control of their processes, plants and operation. Chemical Engineering, therefore, offers inviting opportunities for employment and promotion in a profession which is rendering a distinct service to the welfare and comfort of the people of the State.

Chemical engineering pertains to the engineering problems of chemical industries and chemical processes. The curriculum offers technical training in the fundamentals of Chemical Engineering. It is arranged to equip trained engineers for any field of applied chemical work.

The chemical engineer is expected to determine the process, the material, design, and the economic capacity of the equipment needed. Efficient production requires exact control in every stage of the process. The student is taught the importance of devising efficient and economical methods, machinery and appliances; of discovering sources of loss and the remedy; of by-products; of recovering and converting waste products into useful substances, as well as industrial calculations of input, output, efficiency, and quality.

Instruction is given in the processes of manufacturing industrial chemical products and in the waterpower and fuel resources for such production. North Carolina is rapidly increasing its electro-chemical plants and its plants for manufacturing such products as paper pulp, fertilizers, vegetable oils, leather, rubber goods, aluminum, metallurgical products, gas, asbestos products, fire extinguishers, paints, varnishes, shoe polish, fish oil and scrap, and tanning extracts. Careful study is made of industrial opportunities and research is carried on to further the utilization of the natural resources of the State.

This department co-operates closely with several State Departments in such investigations as the complete analysis of fuel purchased for State Institutions, on materials used in highway work, in stream pollution and industrial studies of water supplies, in boiler feed waters, in corrosion resistance, and in examination of materials bought by the State on specification.

Graduates in Chemical Engineering may expect to find employment in such fields as chemical engineers in control work, industrial research, technologists, superintendents of chemical industries, and municipal engineers, engineers in the State and Federal health service, consulting chemical engineers, manufacturers of chemicals and of chemical equipment, chemical salesmen and representatives, and as promoters of new chemical industries in the South. The training provides the basic courses in Chemistry as well as Engineering, so that the graduate is prepared to enter successfully into any field of chemical activity.

CURRICULUM IN CHEMICAL ENGINEERING

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Chemical Engineering Practice, Chem. E. 101	1	1	1
Business English, Public Speaking, Eng. 120, 160, or German I, M. L. 102	0	3	3
Physics, Phys. 104	5	5	5
Qualitative Analysis, Chem. 111	4	0	0
Quantitative Analysis, Chem. 112, 113	0	4	4
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	18	21	21

Junior Year

Mechanics, C. E. 200	3	3	3
Economics I, Accounting, Sociology, Econ. 102, 112, and Soc. 102	3	3	3
Elements of Electrical Engineering I, E. E. 102	3	3	0
Organic Chemistry, Chem. 221	4	4	4
Industrial Chemistry, Chem. E. 201	3	3	3
Technical Writing, Eng. 130	0	0	3
Machine Shop, M. E. 218	1	1	0
Electives	3	3	3
	20	20	19

Summer requirement: six weeks industrial employment.

Senior Year

Heat Engines III, M. E. 201	3	3	0
M. E. Laboratory I, M. E. 114	1	1	0
Physical Chemistry, Chem. 231	4	4	0
Electrochemical Processes, Chem. E. 301	0	0	3
Mineralogy, Geol. 230	0	0	3
Water Purification, Chem. E. 204	3	0	0
Chemistry of Engineering Materials, Chem. E. 205	0	3	0
Business Law, Econ. 211	0	0	3
Principles of Chemical Engineering, Chem. E. 202	3	3	3
‡Electives	3	3	3
	17	17	15

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

CIVIL ENGINEERING

I. General Civil Engineering
II. Highway Engineering
III. Construction Engineering
IV. Sanitary Engineering

The aim of the curricula in Civil Engineering is to give such training as will enable young men to take an active part in the work of advancing our State along material lines, such as developing its water-power, building railroads and public highways, and constructing water supply and sewerage systems for our towns.

The theoretical and classroom work is supplemented with practical work in the field, drawing-rooms, and laboratories to demonstrate the relations existing between theory and practice. At the same time it is recognized that a successful engineer requires a well-trained mind—one that reasons logically, accurately, and quickly. Therefore, a thorough course is given in all those branches of applied mathematics which are used in the solution of engineering problems.

The work, accompanied as it is by the cultural training acquired through the instruction in Mathematics, English, Chemistry, Economics, Modern Languages, and Military Science, especially equips a young man to fit into the present-day needs of the country.

The curricula are arranged to give the student an understanding of the principles underlying the various branches of the profession and at the same time teach him to apply these principles to the practical problems with which the Civil Engineer has to deal.

Those students taking the general Civil Engineering curriculum may at the beginning of the senior year elect the Highway Engineering option, as set forth in the curriculum of Civil Engineering II, Highway Engineering.

Those students taking the general Civil Engineering curriculum may at the beginning of the junior year elect the Construction Engineering options, as set worth in the curriculum of Civil Engineering III, Construction Engineering.

Those students taking the general Civil Engineering curriculum may at the beginning of the junior year elect the Sanitary Engineering options as set forth in the curriculum of Civil Engineering IV, Sanitary Engineering.

For instruction in Civil Engineering to demonstrate classroom problems the following are provided: Surveying instruments, plane tables, current meters, sextants, cement laboratory apparatus for demonstrating classroom problems.

Particular attention is called to the engineering construction options to the general curriculum in Civil Engineering, which have been introduced in response to the State-wide demand for education for building construction, and contracting.

CURRICULUM IN CIVIL ENGINEERING

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Business English, Technical Writing, *Public Speaking, Eng. 120, 130, 160, or †Spanish I, M. L. 103	3	3	3
Physics, Phys. 104	5	5	5
Detail Drawing, C. E. 106	1	1	1
Materials of Construction, C. E. 104	3	0	0
Surveying I, C. E. 102	0	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Engineering Geology, Geol. 201	3	0	0
Mechanics, C. E. 200	3	3	3
Surveying II, C. E. 206	3	3	0
Field Surveying II, C. E. 207	1	1	1
Highway Engineering I, H. E. 201	0	3	3
Graphic Statics, C. E. 209	1	0	0
Topographical Drawing, C. E. 208	0	1	0
Heat Engines II, M. E. 115	0	0	3
Engineering Office Practice, C. E. 210	0	0	1
Economics, Accounting, Sociology, Econ. 102, 112, and Soc. 102	3	3	3
Elements of Electrical Engineering I, E. E. 102	3	3	0
‡Electives	3	3	3
	20	20	17

Summer requirement: six weeks industrial employment.

Senior Year

Strength of Materials and Reinforced Concrete, C. E. 203	3	3	3
Roofs and Bridges, and Structural Design, C. E. 204	3	3	3
Hydraulics, C. E. 205	3	0	0
Water Works, C. E. 305	0	3	0
Applied Astronomy, C. E. 301	0	0	3
Engineering Field Problems, C. E. 201	1	0	0
Materials Testing Laboratory, H. E. 204	0	1	1
Sewerage, C. E. 308	0	3	0
Railroad Engineering, C. E. 306	0	0	3
Business Law, Econ. 211	3	0	0
‡Electives	3	3	3
	16	16	16

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

CIVIL ENGINEERING II—HIGHWAY ENGINEERING

North Carolina has, during the past fifteen years, made remarkable progress in the building of good roads, and the beneficial effect of these well-constructed highways is being shown in the development of the State along social and industrial lines. Not only has the State undertaken, on a large scale, the building of an adequate highway system, but most of the counties and cities in the State have spent large sums in the building of new roads or the improvement of old roads. And what has already been done is possibly only a beginning, for it is likely that even larger road construction programs by the State and its political subdivisions will be necessary if the material prosperity of the State—dependent so largely on adequate transportation facilities—is to continue.

The building of roads and their proper maintenance are engineering problems to be handled by technically trained men. To meet the need and demand for such men the North Carolina State College offers a four-year curriculum in Highway Engineering. Since Highway Engineering is, fundamentally, a special division of the broad field of Civil Engineering, the Curriculum for the first three years is identical with the regular Civil Engineering curriculum. In the fourth year, however, the student who specializes in Highway Engineering is given more specific instruction in those subjects pertaining to Highway Engineering. The entire curriculum is arranged so that graduates in this department will not only be well trained technically, but will have that broad general education so essential to success in engineering.

State College, due to its favorable location, offers unusual opportunities to young men to study Highway Engineering. Not only are the necessary facilities available for theoretical instruction, but there are in and near Raleigh many opportunities for studying the practical application of the principles of highway construction. Raleigh and Wake County have built, or have under construction, most of the different types of road surfaces; the laboratories of the State Highway Commission are available for inspection, and numerous experimental sections of road constructed by the Commission near Raleigh can be examined.

CURRICULUM IN HIGHWAY ENGINEERING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Business English, Technical Writing, *Public Speaking, Eng. 120, 130, 160, or †Spanish I, M. L. 103	3	3	3
Physics, Phys. 104	5	5	5
Detail Drawing, C. E. 106	1	1	1
Materials of Construction, C. E. 104	3	0	0
Surveying I, C. E. 102	0	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Engineering Geology, Geol. 201	3	0	0
Mechanics, C. E. 200	3	3	3
Surveying II, C. E. 206	3	3	0
Field Surveying II, C. E. 207	1	1	1
Highway Engineering I, H. E. 201	0	3	3
Graphic Statics, C. E. 209	1	0	0
Topographical Drawing, C. E. 208	0	1	0
Heat Engines II, M. E. 115	0	0	3
Engineering Office Practice, C. E. 210	0	0	1
Economics, Accounting, Sociology, Econ. 102, 112, and Soc. 102	3	3	3
Elements of Electrical Engineering I, E. E. 102	3	3	0
‡Electives	3	3	3
	20	20	17

Summer requirement: six weeks industrial employment.

Senior Year

Strength of Materials and Reinforced Concrete, C. E. 203	3	3	3
Roofs and Bridges and Structural Design, C. E. 204	3	3	3
Hydraulics, C. E. 205	3	0	0
§Business Organization, Econ. 210	0	3	0
Applied Astronomy, C. E. 301	0	0	3
Highway Office Practice and Design, H. E. 302	1	0	0
Materials Testing Laboratory, H. E. 204	0	1	1
Highway Engineering II, H. E. 301	3	3	3
‡Electives	3	3	3
	16	16	16

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

§Or business Law, Econ. 211.

CIVIL ENGINEERING III—CONSTRUCTION ENGINEERING

This curriculum is offered in order to educate men for the profession of Engineering, particularly as it is related to construction.

North Carolina's progress indicates great increase in building and general construction. Construction needs more and better trained men to meet the immediate demands as well as to anticipate the greatly increased demands of the future. Builders, as few others, need to know at all times exactly where they stand on the projects they undertake. The contractor, to be successful, must conduct his business systematically and economically. Therefore, he must learn not only general engineering technique, but also something of Architecture and business methods and practices; he must delve further into construction and learn the principles involved, the methods, practices, and successful policies in use.

Combined into this curriculum are the fundamental courses in the Civil Engineering curriculum, a few courses in Architecture, a few additional courses dealing with business, and special courses in Construction Engineering in the junior and senior years.

The theory in the construction Engineering courses is supplemented by frequent inspection trips to projects under construction, and particular emphasis is placed upon estimating, modern methods, and management of operations.

This curriculum is designed to prepare the student to enter the work of actual construction of modern structures and to lay a foundation for future work as owners, managers, or executives in the construction industry.

CURRICULUM IN CONSTRUCTION ENGINEERING

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Business English, Technical Writing, *Public Speaking, Eng. 120, 130, 160, or †Spanish I, M. L. 103	3	3	3
Physics, Phys. 104	5	5	5
Detail Drawing, C. E. 106	1	1	1
Materials of Construction, C. E. 104	3	0	0
Surveying I, C. E. 102	0	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Appreciation of Fine Art, A. E. 209	3	0	0
Mechanics, C. E. 200	3	3	3
Surveying II, C. E. 206	3	3	0
Field Surveying II, C. E. 207	1	1	1
Graphic Statics, C. E. 209	1	0	0
Topographical Drawing, C. E. 208	0	1	0
Engineering Office Practice, C. E. 210	0	0	1
Economics, Accounting, Sociology, Econ. 102, 112, and Soc. 102	3	3	3
Engineering Economy, I. E. 213	0	0	3
Elements of Electrical Engineering I, E. E. 102	3	3	0
Construction Engineering I, C. E. 211	0	3	4
‡Electives	3	3	3
	20	20	18

Summer requirement: six weeks industrial employment.

Senior Year

Sanitation and Mechanical Equipment of Buildings, C. E. 202	0	3	0
Strength of Materials and Reinforced Concrete, C. E. 203	3	3	3
Roofs and Bridges and Structural Design, C. E. 204	3	3	3
Hydraulics, C. E. 205	3	0	0
Materials Testing Laboratory, H. E. 204	1	1	0
Business Law, Econ. 211	0	0	3
Construction Engineering II, C. E. 302	3	3	3
Specifications, C. E. 309	0	0	1
‡Electives	3	3	3
	16	16	16

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

CIVIL ENGINEERING IV—SANITARY ENGINEERING

The importance of Sanitary Engineering as it affects the health and life of the people needs no emphasis. The progress of the State of North Carolina in matters affecting health is known the country over. There is need for many more men trained in Sanitary Engineering. To meet this need, the curriculum in Sanitary Engineering is offered. In the main it is the curriculum in General Civil Engineering with selected courses in Bacteriology, Chemical Engineering, and Sanitary Engineering.

As there is a large demand in this State for men familiar with the design and operation of water and sewage plants, special attention will be given to the actual design and practical operation of water purification and sewage disposal plants.

The Sanitary Engineering Laboratory equipment is similar to that used in water and sewage plant laboratories, and the student makes the same tests, using standard methods as are made in water and sewage plant laboratories.

The City of Raleigh water purification plant and the College gymnasium swimming pool filter plant are available for practical demonstration and instruction. Through the coöperation of the Bureau of Sanitary Engineering, State Board of Health, located in Raleigh, the student has a chance to study all phases of its work not only in Sanitary Engineering, but also in the broad field of public health.

Upon graduation, students are prepared to accept positions as water and sewage plant operators, assistant resident engineers with private consulting engineers, junior engineers with state boards of health, and with the United States Public Health Service. After a few years of experience graduates may be expected to advance to positions as superintendents of waterworks, city engineers and city managers, consulting engineers, state sanitary engineers, and senior engineers with the United States Public Health Service.

CURRICULUM IN SANITARY ENGINEERING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Business English, Technical Writing, *Public Speaking, Eng. 120, 130, 160, or †Spanish I, M. L. 103	3	3	3
Physics, Phys. 104	5	5	5
Detail Drawing, C. E. 106	1	1	1
Materials of Construction, C. E. 104	3	0	0
Surveying, I, C. E. 102	0	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Sanitary Engineering, C. E. 215	0	0	3
Mechanics, C. E. 200	3	3	3
Surveying II, C. E. 206	3	3	0
Field Surveying II, C. E. 207	1	1	1
Aquatic Biology, Bot. 210	0	0	2
Graphic Statics, C. E. 209	1	0	0
Topographical Drawing, C. E. 208	0	1	0
General Bacteriology, Bot. 203	0	4	0
Engineering Office Practice, C. E. 210	0	0	1
Economics, Accounting, Sociology, Econ. 102, 112, and Soc. 102	3	3	3
Elements of Electrical Engineering I, E. E. 102	3	3	0
Treatment of Water and Sewage, Chem. E. 208	0	0	3
†Electives	3	3	3
	17	21	19

Summer requirement: six weeks industrial employment.

Senior Year

Strength of Materials and Reinforced Concrete, C. E. 203	3	3	3
Roofs and Bridges and Structural Design, C. E. 204	3	3	3
Hydraulics, C. E. 205	3	0	0
Water Works, C. E. 305	0	3	0
Engineering Field Problems, C. E. 201	1	0	0
Materials Testing Laboratory, H. E. 204	0	1	1
Sewerage, C. E. 308	0	3	0
Business Law, Econ. 211	3	0	0
Water Purification, C. E. 310	0	0	3
Sewage Disposal, C. E. 311	0	0	3
†Electives	3	3	3
	16	16	16

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

ELECTRICAL ENGINEERING

The training of young men for active work in a field as wide and diversified as the Electrical Industry demands, above all else, a thorough preparation in the sciences underlying all branches of engineering, a broad foundation in fundamental electrical theory and a clear understanding of the characteristics of electrical machinery and systems. These factors are essential for success, whether it be in the design and manufacture of electrical equipment, in power production and utilization or the fields of communication and signalling. In all these branches of the industry technical advances are being made with increasing rapidity. With this object in view the curriculum in Electrical Engineering includes comprehensive training in mathematics, physics and chemistry, the fundamental sciences, and adequate training in allied branches of engineering. All courses are accompanied by coordinated work in the laboratory and intensive drill in the applications of theory by means of carefully planned problems. In the Senior year the student is offered two options, one looking toward employment in the fields of design, transmission, or communication, and the other in the field of industrial applications.

The curriculum includes a thorough drill in the preparation of technical reports, courses in economics and business law and opportunity is offered during the Junior and Senior years for further study of industrial organizations and management.

Each student is also required to spend at least six weeks in satisfactory industrial employment before receiving his degree, and during the senior year to make an inspection trip to a number of modern electric installations, and submit a report upon these.

Close coördination in the work of the American Institute of Electrical Engineers is secured through a student branch at the College, which meets twice a month, through the State section of the institute, which meets several times during the year, and through the annual regional meeting of the institute, one section of which is organized as a student convention.

CURRICULUM IN ELECTRICAL ENGINEERING

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101 or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus I and II, Math. 201, 202, 203	5	5	5
Physics, Phys. 104	5	5	5
Economics, Econ. 103	3	3	3
Plane Surveying, C. E. 111	2	0	0
Electrical Engineering Fundamentals, E E. 101	1	3	3
Military Science, Mil. 102 or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	19	19	19

Junior Year

Mechanics, C. E. 200	3	3	3
Heat Engines IV, M. E. 204	3	3	3
Mechanical Engineering Laboratory II, M. E. 202	1	1	1
Business English, Technical Writing, *Public Speaking, Eng. 120, 130, 160, or †French I, M. L. 101	3	3	3
Electrical Engineering, E. E. 201	4	4	4
Electrical Engineering Laboratory, E. E. 202	2	2	2
Electives	3	3	3
	19	19	19

Summer requirement: six weeks industrial employment.

Senior Year

Business Law, Econ. 211	0	0	3
Engineering Economy, I. E. 213	3	0	0
Hydraulics, C. E. 205	0	3	0
Strength of Materials, M. E. 208	3	0	0
Hydraulic Machinery, M. E. 306	0	0	3
Electrical Industry, I. E. 222	0	3	0
Electives	3	3	3
Electric Distribution, E. E. 301	3	0	0
Alternating Current Machinery, E. E. 302	0	4	4
Electrical Engineering Laboratory, E. E. 303	2	2	2
First Option			
Electric Transmission and Communications E. E. 304	4	3	3
Second Option			
Electrical Applications, E. E. 305	4	3	3
	18	18	18

All seniors will be required to go on the inspection trip as part of their curriculum.

*Either Principles of Journalism, Eng. 150, or one etrm of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

Electives may be selected from any department of the College with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

INDUSTRIAL ENGINEERING

The aim of the curriculum in Industrial Engineering is to prepare students to enter the employ of industries as engineering graduates and, through experience, develop into positions of responsibility and service; and thus to meet the demands of small as well as large industries for men educated as engineers with special preparation for the activities of industries.

Consequently, the curriculum provides thorough education in the subjects fundamental to engineering, basic engineering courses, and courses in Psychology, Economics and Accounting, and besides, special Industrial Engineering courses which apply engineering methods and principles to the study of industries; so that students may learn to make engineering, economic and social analyses concurrently, and to apply them to the conduct of enterprises.

Options, to be selected from engineering and other College courses with the definite approval of the adviser, offer opportunity for the development of individual aptitudes.

CURRICULUM IN INDUSTRIAL ENGINEERING

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Algebra, Solid Geometry, Trigonometry, Math. 101, 102 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Analytical Geometry, Differential Calculus, Integral Calculus, Math. 201, 202, 203	5	5	5
Technical Writing, Business English, *Public Speaking, Eng. 130, 120, 160, or †French I, M. L. 101	3	3	3
Physics, Phys. 104	5	5	5
Economics, Econ. 103	3	3	3
Introduction to Industrial Engineering, I. E. 101	1	1	1
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Mechanics, C. E. 200	3	3	3
Heat Engines IV, M. E. 201	3	3	3
Mechanical Engineering Laboratory II, M. E. 202	1	1	1
Introduction to Psychology, Ed. 101	3	0	0
Accounting I, Econ. 201	3	3	3
Engineering Economy, I. E. 213	0	0	3
Options	3	3	3
‖Electives	3	3	3
	19	16	19

Summer requirement: six weeks industrial employment.

Senior Year

Elements of Electrical Engineering II, E. E. 103	3	3	3
Principles of Industrial Engineering	3	3	3
Industrial Psychology, Econ. 238	0	0	3
Options	9	9	3
‖Electives	3	3	3
	18	18	15

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡The Sophomore Class will be divided into two sections for Field Surveying, one section taking this course the first term, the other the second term.

§The Sophomore Class will be divided into three sections for Electrical Practice, one section taking this course each term.

‖Electives may be selected from any department of the College with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

MECHANICAL ENGINEERING

The Mechanical Engineer is primarily a designer and builder of machines and other equipment for use in manufacturing processes, transportation, and the generation of power. He is responsible for the conservation and economical use of the power-producing resources of the world, through the application of the proper kind of equipment in each field of production. He is called upon to take charge of the executive management of the manufacturing, transportation, and power industries. For the Mechanical Engineer to be well grounded in his profession he must be thoroughly familiar with both the science and the art of engineering.

The curriculum in Mechanical Engineering begins with a thorough training in mathematics, physics, and chemistry as a foundation for the technical work which is later developed along several parallel lines. The student is taught how these fundamental sciences are applied to the physical properties of the materials of construction, and to the transformation of heat energy into work and power. This is accomplished by means of courses in drafting, metallurgy, mechanics, and thermodynamics; by the work in the wood shop, forge shop, foundry, and machine shop, and by the tests performed in the mechanical laboratory.

An option is offered in the Mechanical Engineering curriculum for students who desire special training in furniture design and construction. It is the purpose of the option to prepare the students for administrative and executive positions in the furniture industry. The option includes the fundamental laws of design through the study of good examples and through the practice in construction. It also includes a study of the characteristics of the different periods, which enables the student to identify an article by its style and to name and understand its different style points. The furniture used in the dormitories and special equipment for the laboratories and offices is manufactured in our woodworking department. This gives a student special advantage in this phase of the work.

CURRICULUM IN MECHANICAL ENGINEERING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
*Public Speaking, Business English, Technical Writing, Eng. 160, 120, 130, or †Spanish I, M. L. 103	3	3	3
Physics, Phys. 104	5	5	5
Mechanical Drawing, M. E. 107	1	1	1
Metallurgy, M. E. 108	3	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Economics, Accounting, Sociology, Econ. 102, 112, and and Soc. 102	3	3	3
Mechanics, C. E. 200	3	3	3
Machine Shop II, M. E. 219	1	1	1
Heat Engines IV, M. E. 204	3	3	3
Mechanical Laboratory II, M. E. 202	1	1	1
‡Kinematics, M. E. 203	3	3	3
Plane Surveying, C. E. 111	0	2	0
§Electives	3	3	3
	17	19	17

Summer requirement: six weeks industrial employment.

Senior Year

Power Plants, M. E. 305	3	3	3
Strength of Materials, M. E. 208	3	0	0
Hydraulics, C. E. 205	0	0	3
Heating and Ventilating, M. E. 303	0	3	0
‖Machine Design, M. E. 206	2	2	2
‖Gas Engines, M. E. 302	0	3	0
‖Refrigeration, M. E. 304	0	0	3
Mechanical Laboratory III, M. E. 301	1	1	1
Elements of Electrical Engineering II, E. E. 103	3	3	3
Business Law, Econ. 211	3	0	0
§Electives	3	3	3
	18	18	18

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Furniture Option, M. E. 205.

§Electives may be selected from any department of the College with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

‖Furniture Option, M. E. 215.

MECHANICAL ENGINEERING II—AERONAUTICAL OPTION

The rapid development in aeronautics has produced a demand for men who are well versed in the subjects pertaining to Aeronautical Engineering. Since Aeronautical Engineering is fundamentally a branch of Mechanical Engineering, the School of Engineering is offering an Aeronautical Option in the Mechanical Engineering curriculum to train men specifically to meet the needs in this field.

The option offered is essentially the Mechanical curriculum, being identical for the first two years and only a slight variation in the third year. In the fourth year, however, special emphasis is placed upon the studies pertaining to airplane engines, airplane design, and aerodynamics. In addition to theoretical instruction, experiments and tests will be made in the laboratory.

A large and well-equipped airport near the campus adds interest and offers an opportunity for practical instruction. In view of the fact that Raleigh is favorably situated on the North-South airplane course, the student will have a wonderful opportunity to inspect the various types of airplanes that make calls at the local airport.

CURRICULUM IN MECHANICAL ENGINEERING
AERONAUTICAL OPTION

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
*Public Speaking, Business English, Technical Writing, Eng. 160, 120, 130, or †Spanish I, M. L. 103	3	3	3
Physics, Phys. 104	5	5	5
Mechanical Drawing, M. E. 107	1	1	1
Metallurgy, M. E. 108	3	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	20	20

Junior Year

Economics, Accounting, Sociology, Econ. 102, 112, and and Soc. 102	3	3	3
Mechanics, C. E. 200	3	3	3
Machine Shop II, M. E. 219	1	1	1
Heat Engines IV, M. E. 204	3	3	3
Mechanical Engineering Laboratory, M. E. 202	1	1	1
Kinematics, M. E. 203	3	3	3
Plane Surveying, C. E. 111	0	2	0
Introduction to Aeronautics, M. E. 211	0	0	1
‡Electives	3	3	3
	17	19	18

Summer requirement: six weeks industrial employment, or ten hours solo flying.

Senior Year

Airplane Engines, M. E. 310	3	3	3
Airplane Design, M. E. 312	2	2	2
Aerodynamics, M. E. 313	3	3	3
Strength of Materials, M. E. 208	3	0	0
Aeronautical Laboratory, M. E. 311	1	1	1
Elements of Electrical Engineering II, E. E. 103	3	3	3
Business Law, Econ. 211	0	0	3
Hydraulics, C. E. 205	0	3	0
§Electives	3	3	3
	18	18	18

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

MINING ENGINEERING

The purpose in Mining Engineering is to stimulate the development of the mining and quarrying industries of North Carolina and the South through research, and to train students who will aid in this development.

The mineral resources of the State, both metallic and non-metallic, have received so little attention that this is practically a virgin field. In the western part of the State there exists valuable deposits of copper, nickel, iron, mica, feldspar, granite, limestone, and other minerals; in the central part, coal deposits of promising quantity and quality and large areas of pyrophillite, granite, and other valuable building stones; and in the eastern part, phosphate and marls.

The curriculum in Mining Engineering is designed to train students especially for mining conditions to be met in North Carolina and the South. On account of the emphasis placed on Geology and Civil Engineering subjects, graduates will also be particularly fitted for positions with state geological surveys, with oil and mining companies in geological engineering capacities, and with hydropower companies on dam work. Students will also have the additional advantage of coming in close contact with the research which is being done on the minerals of the State and which of necessity will be greatly enlarged within the next few years.

CURRICULUM IN MINING ENGINEERING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Shopwork, M. E. 104	1	1	1
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19	19	19

Sophomore Year

Differential Calculus, Integral Calculus, I and II, Math. 201, 202, 203	5	5	5
Physics, Phys. 104	5	5	5
Engineering Geology, Geol. 201	0	0	3
Surveying I, C. E. 102	0	3	3
Materials of Construction, C. E. 104	3	0	0
Qualitative Analysis, Chem. III	4	0	0
Historical Geology, Geol. 125	0	3	0
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	19	19

Junior Year

Mechanics, C. E. 200	3	3	3
*Public Speaking, Business English, Technical Writing, Eng. 160, 120, 130, or †Spanish I, M. L. 103	3	3	3
Field Surveying II, C. E. 207	1	1	0
Topographical Drawing, C. E. 208	0	1	0
Surveying II, C. E. 206	3	3	0
Mineralogy, Geol. 230, 235	3	3	0
Heat Engines IV, M. E. 204	3	3	3
Mechanical Lab. II, M. E. 202	1	1	1
Graphics Statics, C. E. 209	1	0	0
Mining I, Min. E. 102	0	0	3
Electives	3	3	3
	21	21	16

Summer requirement: six weeks industrial employment.

Senior Year

Strength of Materials, M. E. 208	3	0	0
Elements of Electrical Engineering I, E. E. 102	3	3	0
Roofs and Bridges, C. E. 204	3	0	0
Economic Geology, Geol. 285, 286	0	3	3
Hydraulics, C. E. 205	0	0	3
Business Law, Econ. 211	0	0	3
Mining II, Min. E. 201	3	3	3
Petrography, Geol. 295	0	3	0
Economics I, Accounting, Sociology, Econ. 102, 112, Soc. 102	3	3	3
‡Electives	3	3	3
	18	18	18

All seniors will be required to go on the inspection trip as part of their curriculum.

---

*Either Principles of Journalism, Eng. 150, or one term of a course in American or English Literature may be elected in place of Public Speaking.

†With the consent of the advisor, another course in modern language may be elected in place of the one prescribed as alternative to the courses in English.

‡Electives may be selected from any department of the college with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

THE ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station of the North Carolina State College of Agriculture and Engineering was established in 1923, as provided by the General Assembly of that year. It is an integral part of the School of Engineering, and is engaged in an organized program of research consisting of individual projects carefully defined and approved, which are carried on by engineering teachers. The Station fits uniquely into the program of instruction, research, and extension of State College.

Purpose

The efforts of the Engineering Experiment Station are directed along the following lines:

(a). The investigation of resources and processes, through experimentation and tests, with the object of opening and developing wider fields for the use of the natural resources of the State.

(b). Cooperation with industrial organizations in the solution of technical problems, which require such facilities and equipment as are available at State College.

(c). The coordination of research work undertaken by the Engineering School.

(d). The publication of the results of experimental and research projects made by the Engineering Experiment Station and the several engineering departments of State College.

THE SCHOOL OF SCIENCE AND BUSINESS

BENJAMIN FRANKLIN BROWN, *Dean*

PURPOSE OF THE SCHOOL

The School of Science and Business was established July 1, 1923, in response to the growing need for the application of broader scientific and business methods to the expanding development of the State's resources. The rapid advance in agricultural and manufacturing industries of North Carolina and the development of the State's industrial centers have made it necessary for men engaged in agriculture and other industries within the State to employ broader applications of modern science and the best methods of commanding the nation's and the world's markets.

This increase in productive power of our people requires: (1) the widening of our markets as an outlet for our goods; (2) the improving of our methods of business management to reduce costs of production and increase net incomes, and (3) the further developing and improving of our system of banking and credit which is so essential to economical production.

It is the main purpose of the School to give men technical training in the various sciences which underlie all modern industry and agriculture, and in the several fields of economic endeavor outlined above, in order that our resources of all kinds may be still better developed and the economic well-being of our people still further improved.

ORGANIZATION OF THE SCHOOL

Instruction in the School of Science and Business, therefore, is organized into three broad groups as follows:

I. **Science:** Curricula in Chemistry, Biology, Physics, and Geology.*

II. **Business:** Curricula in Business Administration† with majors in Accounting, in Finance, and in Marketing; Industrial Management, consisting of basic engineering courses, but with major emphasis on the management of production, and General Business,† consisting of the basic economic courses, with a wider vocational objective than the other business curricula.

A statement of the professional aims of each curriculum mentioned above, both in science and in business, will be found in the ensuing pages, just preceding the curriculum to which in each case it refers.

III. **The cultural subjects** offered by the departments of **Economics, English, History, Modern Languages, and Sociology** are a necessary accompaniment of the technical curricula in all schools.

The courses in Economics serve as a preparation for grappling with (1) problems of internal private business management, and (2) problems of national

*There is always a moderate demand for well trained geologists in connection with State and Federal geological surveys, oil and mining companies, industrial companies, the leading railways, and as teachers of geology. Students desiring to take a major in Geology should begin specializing in that subject in the sophomore year. This may be done by consulting with the vocational advisor in Geology and the Dean of the School of Science and Business.

†The curricula in Business Administration and General Business will be open to students with sophomore, junior, or senior standing, but not to freshmen in September, 1933.

policy, such as taxation, the tariff, the regulation of banking, great capitalistic enterprises, including public utilities and the like. No single method of approach can be used in dealing with such problems. Students are strongly advised that, in order to do any really practical and advanced study, they must ground themselves in such basic tools of knowledge as the fundamentals of economic theory, accounting, and statistics.

The Department of English, in addition to its courses in Composition, Literature, Public Speaking and Business English, offers several practical courses in Journalism. Students in Agriculture, Education, Engineering, Science and Business, or Textiles who desire particular training in journalistic writing as applied to their professions should elect these courses.

The Department of History offers a number of general courses in American and European History, North Carolina History, Commercial Geography and Government, open to students in all schools. Students who desire particular training in State, county, and city administrative work should elect the course in Public Administration, and in addition the advanced courses in State History, Political Science, Government, and Public Finance.

The Department of Modern Languages offers courses in French, German, and Spanish, with the following objectives: (1) basic linguistic and literary training; (2) technical and industrial training; (3) scientific training. These courses are open to students in all schools, and should be elected by those who expect to be connected later with foreign commerce. Opportunity for special work in languages is offered to students in Education, Science, and General Business.

The Department of Sociology offers courses open to students in all schools, besides courses for graduate students majoring in Sociology. The particular attention of students in Agriculture and in Vocational Agricultural Teaching is called to the courses in Rural Sociology, and of students in Engineering, Textiles and Business to those in Industrial Sociology.

ADMISSION

Each applicant for admission must present evidence that he has satisfactorily completed a four-year curriculum of not fewer than fifteen units in a secondary school which is approved by the State Department of Education.

Each applicant for admission must be at least sixteen years old, and must submit fifteen units of credit from an accredited high school. Of these units 8.5 are in specified subjects and 6.5 in elective subjects.

ADVANCED STANDING

Students coming from colleges of approved standing will be allowed credit for work done upon presentation of proper certificates to the Dean, who will evaluate their credit rating. Only entrance credit is allowed for work done in secondary schools.

REQUIREMENTS FOR GRADUATION

A minimum of one hundred ninety-eight (198) term credits and one hundred ninety-eight (198) points is required for graduation from the School of Science

and Business.* The term credits should be distributed as follows: A maximum of sixty (60) term credits in a major department, and a minimum of eighteen (18) term credits in Language, twenty (20) term credits in Science, nine (9) term credits in Social Science, twelve (12) term credits in Military Science or the alternative, and six (6) term credits in Physical Education, together with sufficient electives to total not fewer than one hundred ninety-eight (198) term credits.

Students entering with advanced standing are required during the remainder of their course to earn at least as many points as the number of term credits remaining necessary for graduation.

**Every regularly enrolled freshman or sophomore is required to take not fewer than seventeen nor more than nineteen term credits each term, including the required Physical Education and the required Military Science or alternative. Every regularly enrolled junior or senior is required to take not fewer than fourteen nor more than seventeen term credits each term. Students who have previously demonstrated superior scholarship may be permitted to take extra work the following term.

DEGREES

Upon satisfactory completion of the work in any curriculum of the School the degree of Bachelor of Science is conferred.

For advanced degrees, see statement of the Graduate School.

CURRICULA

The first year's work is substantially the same for all students in the School of Science and Business. The training is general, which fact gives the student a good opportunity to make a wise choice in his vocation, for he may, if he chooses, change his vocational group at the beginning of his sophomore year or in some cases even as late as the beginning of his junior year. Any important change made after this will necessitate more than four years for graduation.

SCIENCE AND BUSINESS CURRICULA FOR UNIVERSITY AND COLLEGE GRADUATES

Selected courses leading to the degree "Bachelor of Science" in Science and Business are offered to graduates of universities and standard colleges. These are arranged in accordance with the vocational aim of the individual student and in the light of credits presented from the institution from which the student has been graduated subject to the approval of his adviser and dean. In cases where the student presents enough credits which may be used for courses required in his curriculum he may be graduated with a B.S. degree in one year. In no case should it take more than two years to complete the work for his B.S. degree.

---

*This is true of all curricula, except that freshmen entering Industrial Management in September, 1933, and succeeding classes in that curriculum will be required to complete not fewer than two hundred twenty-two (222) term credits and two hundred twenty-two (222) points for graduation.

**Does not apply to the first year in Industrial Management. See that curriculum.

BUSINESS ADMINISTRATION

The curriculum in Business Administration is designed to train the student in the broad fundamentals underlying the administration of successful business enterprise. The courses are so arranged that the student will receive four years of preparation in the methods, practices, and problems of business.

The prescribed course of study for the first two years is the same for all students. It is expected that by the time a student reaches his junior year he will have a definite major interest. Instruction is given in three major fields of business activity—Marketing, Accounting, and Finance—from which the student is to make his selection. Each represents a major field and is designed to guide a student in his preparation for that field.

The courses covered include Commercial Banking, Investment Banking, Accounting, Advertising, Marketing and Selling, and Retailing. The purpose of these courses is to prepare the student for executive or other positions in various industries. This training will enable the student to become active in the Textile, Tobacco, Furniture, Lumbering, Transportation, and Tile and Brick industries and other important industries and business enterprises that are rapidly developing within the State. Wholesalers, jobbers, department stores, trade associations, banks, chambers of commerce, and business in general utilize men having a fundamental business training offered in Business Administration.

CURRICULUM IN BUSINESS ADMINISTRATION

*Freshman Year

Courses	Credits First Term	Second Term	Third Term
Rhetoric and Composition, Eng. 101	3	3	3
General Physics, Phys. 101 or General Inorganic Chemistry, Chem. 101, 103, and 105	4	4	4
American Economic History, Hist. 102, Commercial Geography, Hist. 103, and Introduction to Business, Econ. 101	5	5	5
Human Relations, Soc. 101 or Military Science, Mil. 101	2	2	2
Physical Training, P. E. 101	1	1	1
†Freshman Option	3	3	3
	18	18	18

Sophomore Year

‡English or Modern Language	3	3	3
General Botany, Bot. 101 and 102 or General Zoölogy, Zoöl. 101	4	4	0
General Economics, Econ. 103	3	3	3
General Sociology, Soc. 103 and an elective Sociology	3	3	3
Accounting I, Econ. 201	3	3	3
World History, Hist. 104 or Military Science, Mil. 102	2	2	2
Physical Training, P. E. 102	1	1	1
Elective	0	0	3-4
	19	19	18-19

Junior Year

ACCOUNTING GROUP

Accounting II, Econ. 301	3	3	3
Marketing Methods, Econ. 215	3	3	3
Money, Credit and Banking, Econ. 221	3	3	0
Business Finance, Econ. 223	0	0	3
Industrial Management, Econ. 230	3	3	3
Electives	2–5	2–5	2–5
	14–17	14–17	14–17

FINANCE AND BANKING GROUP

Accounting II, Econ. 301	3	3	3
Marketing Methods, Econ. 215	3	3	3
Money, Credit and Banking, Econ. 221	3	3	0
Business Finance, Econ. 223	0	0	3
Industrial Management, Econ. 230	3	3	3
Electives	2–5	2–5	2–5
	14–17	14–17	14–17

MARKETING GROUP

Marketing Methods, Econ. 215	3	3	3
Money, Credit and Banking, Econ. 221	3	3	0
Business Finance, Econ. 223	0	0	3
Industrial and Personnel Management, Econ. 231	3	3	3
Electives	5–8	5–8	5–8
	14–17	14–17	14–17

*See footnote page 121. Freshmen desiring to emphasize the economic and business aspects of Industry are advised to register in Industrial Management. The first year in that curriculum is basic to management training in every phase of Industry, Textile Manufacturing, and Engineering as related to Industry, now taught at State College.

†Freshman Option. One of the following groups is to be chosen by the student and when elected must be pursued through the year:

1. Mathematical Analysis, 3-3-3.
2. French or German or Spanish, 3-3-3.
3. Psychology, Earth History and Astronomy or an approved course in other science, 3-3-3.
4. Physical Geology, Historical Geology and Physiography, 3-3-3.

‡Business English is required in the Sophomore year. Students taking a Modern Language here should take Business English in the third term in place of the elective.

Senior Year

ACCOUNTING GROUP

Courses	Credits *First Term*	*Second Term*	*Third Term*
Statistical Methods, Econ. 212	3	3	0
Business Statistics, Econ. 214	0	0	3
Business Law, Econ. 211	3	0	0
Personnel Management, Econ. 340	0	3	3
Cost Accounting, Econ. 303	3	3	3
Accounting Systems, Econ. 302	3	3	3
Electives	2–5	2–5	2–5
	14–17	14–17	14–17

FINANCE AND BANKING GROUP

Statistical Methods, Econ. 212	3	3	0
Business Statistics, Econ. 214	0	0	3
Business Law, Econ. 211	3	0	0
Personnel Management, Econ. 340	0	3	3
Investments, Econ. 325	0	3	0
Business Finance II, Econ. 323	3	0	0
Foreign Exchange and Trade, Econ. 324	0	0	3
Electives	5–8	5–8	5–8
	14–17	14–17	14–17

MARKETING GROUP

Statistical Methods, Econ. 212	3	3	0
Business Statistics, Econ. 214	0	0	3
Business Law, Econ. 211	0	3	0
Traffic Management, Econ. 241	3	0	0
Foreign Exchange and Trade, Econ. 324	0	0	3
Advertising, Econ. 217	3	0	0
Sales Management, Econ. 218	0	3	3
Electives	5–5	5–8	5–8
	14–17	14–17	14–17

INDUSTRIAL MANAGEMENT

The Industrial Management curriculum is designed to assist students to develop toward management and executive positions in industry from the production side of manufacturing. Basic preparation is required in production through engineering subjects, and in departmental and general administration through economic and management subjects. Additional engineering and business electives in definite manufacturing and commercial fields give a training in production, business methods, and practices of the textile, tobacco, furniture, metal, automotive, ceramic, and more general industries.

The curriculum gives training for the future executive through a progression of basic engineering and business subjects. Graduates should expect to gain practical experience and learn industrial technique by entering the industrial or commercial departments of manufacturing concerns in subordinate positions.

Close contact with advisers will be necessary in order to make the proper selection of elective, prerequisite, and required subjects to meet the special needs of students in the various fields of specialization possible within the curriculum.

CURRICULUM IN INDUSTRIAL MANAGEMENT

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Rhetoric and Composition, Eng. 101	3	3	3
American Economic History and Geography, Hist. 101	3	3	3
*Algebra, Trigonometry, Analytical Geometry, Math. 101, 102, 103	5	5	5
or			
Mathematical Analysis, Math. 100	3	3	3
General Chemistry, Chem. 101, 103, 105	4	4	4
Engineering Drawing II, M. E. 102	3	3	0
Descriptive Geometry, M. E. 103	0	0	3
Military Science, Mil. 101, or			
Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	19–21	19–21	19–21

Sophomore Year

†Language	3	3	3
General Economics, Econ. 103	3	3	3
Accounting I, Econ. 201	3	3	3
‡Differential Calculus, Integral Calculus I and II, Math. 201, 202, 203	5	5	5
General Physics, Phys. 101	4	4	4
World History or Military Science, Mil. 102	2	2	2
Physical Training, P. E. 102	1	1	1
	21	21	21

Junior Year

Cost Accounting, Econ. 303	3	3	0
Statistical Methods, Econ. 212	0	0	3
Time Study, Econ. 242	3	0	0
Introduction to ociology, Soc. 102	0	3	0
Labor Problems, Econ. 239	0	0	3
Introduction to Psychology and Industrial Psychology, Ed. 101, 101-A, and Econ. 238	3	3	3
§Heat Engines III, M. E. 201	3	3	0
Mechanical Engineering Laboratory II, M. E. 114	1	1	0
¶Electives	4–5	4–5	8–9
	17–18	17–18	17–18

Senior Year

Marketing and Sales Management, Econ. 215, 218	3	3	3
Industrial Management, Econ. 239	3	3	3
Personnel Management, Econ. 340	0	3	3
Business Law, Econ. 211	3	0	0
Elements of Electrical Engineering, E. E. 102	3	3	0
Heating and Ventilating, M. E. 303	0	0	3
‖Electives	5	5	5
	17	17	17

*Students expecting to take their electives in the School of Engineering should prefer Algebra, Trigonometry, and Analytical Geometry, and must take them if Mathematics is to be taken in the second year. Students expecting to take their electives in Textiles may take Mathematical Analysis.

†Business English is required for one term; but students may elect to take a foreign language here and postpone Business English to the junior or senior year.

‡If junior and senior electives are to be taken in Mechanical Engineering, Differential and Integral Calculus are required as prerequisites. If junior and senior electives are to be taken in Chemical Engineering, Chemistry 111, 112, and 113 are required as prerequisites. If junior and senior electives are to be taken in Ceramic Engineering, Chemistry 131 is required as prerequisite. If junior and senior electives are to be taken in Textile Chemistry and Dyeing, Chemistry 111, 112, and 114 are required as prerequisites. Calculus is not required if junior and senior electives are to be taken in textiles.

§Students with the necessary mathematical prerequisites may substitute the more advanced Heat Engines IV, M. E. 204, which must be accompanied by Mechanical Engineering Laboratory, M. E. 202. Those who have had only Mathematical Analysis or equivalent may substitute Heat Engines I, M. E. 110.

¶Mechanics, C. E.200 must be taken if Strength of Materials, M. E. 208 is to be elected in the senior year.

‖Power Plants, M. E. 305 or other equivalent engineering subject is suggested.

GENERAL BUSINESS

The curriculum in General Business prepares the student for a less specialized position in the business world than does that in Business Administration. It should be taken by those who desire a general knowledge of business, and with it the broader education made possible by the minor subject and the more numerous electives.

The major requirement for graduation in this curriculum is not fewer than thirty-six (36) nor more than sixty (60) term credits in business subjects.

The minor requirement is not fewer than eighteen (18) term credits in the minor subject selected by the student in consultation with his adviser and the dean. Beginning courses may not be used to satisfy the minor requirement.

CURRICULUM IN GENERAL BUSINESS

*Freshman Year

Courses	Credits First Term	Second Term	Third Term
Rhetoric and Composition, Eng. 101	3	3	3
General Physics, Phys. 101 or General Inorganic Chemistry, Chem. 101, 103, and 105	4	4	4
American Economic History, Hist. 102, Commercial Geography, Hist. 103, and Introduction to Business, Econ. 101	5	5	5
Human Relations, Soc. 101, or Military Science, Mil. 101	2	2	2
Physical Training, P. E. 101	1	1	1
†Freshman Option	3	3	3
	18	18	18

Sophomore Year

‡English or Modern Language	3	3	3
General Botany, Bot. 101 and 102, or General Zoölogy, Zoöl. 101	4	4	0
General Economics, Econ. 103	3	3	3
General Sociology, Soc. 103 and an elective Sociology	3	3	3
Accounting I, Econ. 201	3	3	3
World History, Hist. 104 or Military Science, Mil. 102	2	2	2
Physical Training, P. E. 102	1	1	1
Elective	0	0	3-4
	19	19	19

Junior Year

Marketing Methods, Econ. 215	3	3	3
Money, Credit and Banking, Econ. 221	3	3	0
Business Finance, Econ. 223	0	0	3
Minor subject	3	3	3
Electives	5–8	5–8	5–8
	14–17	14–17	14–17

Senior Year

Industrial and Personal Management, Econ. 231	3	3	3
Statistical Methods, Econ. 212	3	3	0
Business Statistics, Econ. 214	0	0	3
Minor subject	3	3	3
Electives	5–8	5–8	5–8
	14–17	14–17	14–17

*See footnote page 121. Freshmen desiring to emphasize the economic and business aspects of Industry are advised to register in Industrial Management. The first year in that curriculum is basic to management training in every phase of Industry, Textile Manufacturing and Engineering as related to Industry, now taught at State College.

†Freshman Option. One of the following groups is to be chosen by the student and when elected must be pursued through the year:

1. Mathematical Analysis, 3-3-3.
2. French or German or Spanish, 3-3-3.
3. Psychology, Earth History and Astronomy or an approved course in other science, 3-3-3.
4. Physical Geology, Historical Geology and Physiography, 3-3-3.

‡Business English is required in the Sophomore year. Students taking a Modern Language here should take Business English in the third term in place of the elective.

BIOLOGY

With the increasing demand for scientifically trained men, opportunities for those trained in Biology are greater than ever before. So numerous are the special fields within the general field of science of living things that today a great range of choice is open for the student in both the plant and animal studies.

The departments of Botany and Zoology are prepared to lay the necessary foundation to enable the student to start in such professions as those of Biology Teachers in high schools, Instructors in Botany or Zoology in colleges and universities, Technical Specialists in Bacteriology, Genetics, Plant and Animal Physiology, Plant Pathology, Entomology, Economics, Zoology, Ecology, and Plant and Animal Morphology.

Following the completion of the undergraduate work in Biology it is very desirable for the student, as early as possible, to pursue his graduate studies. With this in mind the undergraduate student may major in either Botany or Zoology, having opportunity to take sufficient courses to build a solid foundation for his graduate work. If he so desires he may take an equivalent number of courses in each of the two departments, thus laying a broad foundation in Biology, preparatory to carrying on his advanced studies.

The pre-medical student will find in the Biology curriculum the biological courses necessary for his entrance into a standard medical college. Any student contemplating a medical career should consult the Department of Zoology in regard to the subject-matter and arrangement of his course.

CURRICULUM IN BIOLOGY

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Rhetoric and Composition, Eng. 101	3	3	3
General Botany, Bot. 101, 102 and Systematic Botany, Bot. 204, or General Zoölogy, Zoöl. 101 and elective in Biology	4	4	4
General Chemistry, Chem. 101, 103, and 105	4	4	4
American Economic History and Geography, Hist. 101	3	3	3
Human Relations, Soc. 101, or Military Science, Mil. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	17	17	17

Sophomore Year

General Botany, Bot. 101, 102, or General Zoölogy, Zoöl. 101	4	4	0
Animal Physiology, Zoöl. 102, or Plant Physiology, Bot. 103	3	3	0
Economic Entomology, Zoöl. 202 or Plant Diseases, Bot. 202	0	0	3
English	3	3	3
Modern Language	3	3	3
Historical Geology, Geol. 125	0	3	0
Descriptive Astronomy, Phys. 107	0	0	3
Introductory Sociology, Soc. 102	0	0	3
Introduction to Economics, Econ. 102	3	0	0
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	19	19	18

Junior Year

Biology	4	4	4
Modern Language	3	3	3
General Physics. Phys. 101	4	4	4
Electives	3–6	3–6	3–6
	14–17	14–17	14–17

Senior Year

Biology	6	6	6
Electives	8–11	8–11	8–11
	14–17	14–17	14–17

CHEMISTRY

The curriculum in Chemistry is designed to train students desiring to become analysts, experiment station workers, research chemists, United States Government chemists, State chemists, teachers of Chemistry, or who expect to continue their work for advanced degrees.

Students intending to study medicine may take this curriculum, using the electives to satisfy the biological requirements.

As the curriculum is arranged there is a large proportion of time for electives. This makes it an excellent basis for a cultural course in college work. Electives should be chosen upon the advice of the advisers.

CURRICULUM IN CHEMISTRY

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
General Inorganic Chemistry, Chem. 101, 103, and 105	4	4	4
Rhetoric and Composition, Eng. 101	3	3	3
Algebra, Solid Geometry, Trigonometry, Math. 101, 102 and 103	5	5	5
American Economic History and Geography, Hist. 101	3	3	3
Human Relations, Soc. 101, or Military Science, Mil. 101	2	2	2
Physical Education, P. E. 101	1	1	1
	18	18	18

Sophomore Year

Qualitative and Quantitative Analysis, Chem. 111 and 112	4	4	4
Physics for Engineers, Phys. 104	5	5	5
General Economics, Econ. 103	3	3	3
German	3	3	3
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Education, P. E. 102	1	1	1
	18	18	18

Junior Year

Organic Chemistry, Chem. 221	4	4	4
General Botany, Bot. 101, 102 or General Zoölogy, Zoöl. 101	4	4	0
Bacteriology, Bot. 203	0	3	0
German	3	3	3
Mineralogy, Geol. 230	0	0	3
Electives	3–6	0–3	4–7
	14–17	14–17	14–17

Senior Year

Physical Chemistry, Chem. 231	4	4	4
Chemistry elective	2	2	2
Electives	8–11	8–11	8–11
	14–17	14–17	14–17

INDUSTRIAL CHEMISTRY

This curriculum in Industrial Chemistry is designed for students who prefer the industrial and plant management in the chemical field rather than the more strictly theoretical field.

The students are given a thorough knowledge of analytical, organic, and physical chemistry so that they may understand and do successfully the chemistry required in plants. Courses in Economics and Business Administration are given so that the students taking this course have a strong foundation for managerial and executive positions.

CURRICULUM IN INDUSTRIAL CHEMISTRY

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
General Inorganic Chemistry, Chem. 101, 103, and 105	4	4	4
Rhetoric and Composition, Eng. 101	3	3	3
Algebra, Geometry, Trigonometry, Math. 101, 102, 103	5	5	5
American Economic History and Geography, Hist. 101	3	3	3
Human Relations, Soc. 101, or Military Science, Mil. 101	2	2	2
Physical Education, P. E. 101	1	1	1
	18	18	18

Sophomore Year

Qualitative and Quantitative Analysis, Chem. 111, 112	4	4	4
Physics for Engineers, Phys. 104	5	5	5
General Economics, Econ. 103	3	3	3
Accounting I, Econ. 201	3	3	3
Military Science or World History, Hist. 104	2	2	2
Physical Education, P. E. 102	1	1	1
	18	18	18

Junior Year

Organic Chemistry, Chem. 221	4	4	4
General Botany, Bot. 101, 102 or Zoölogy, Zoöl. 101	4	4	0
Marketing Methods, Econ. 215	3	3	3
Electives	6	6	10
	17	17	17

Senior Year

Physical Chemistry, Chem. 231	4	4	4
Money, Credit, and Banking, Econ. 221	3	3	0
Business Finance, Econ. 223	0	0	3
Industrial Management, Econ. 230	3	3	3
Journalism, Eng. 150	3	0	0
Public Speaking, Eng. 160	0	3	0
Business English, Eng. 120	0	0	3
Electives	1–4	1–4	1–4
	14–17	14–17	14–17

PHYSICS

There is an ever-increasing demand for men trained in the more theoretical side of engineering and the foundation of the physical sciences. Such men are generally trained as expert physicists. For example, radio experts and men employed in the most exact measurements of electrical, heat, and light devices usually prepare themselves by taking undergraduate and graduate courses in Physics. The United States Bureau of Standards, United States Patent Office, United States Geodetic Survey, as well as scores of manufacturing concerns each year look for men so trained. The course in Physics prepares students for these positions. It also is offered for students who wish to teach Physics. Mathematics is required in the freshman and sophomore years.

This curriculum also affords a student who is scientifically inclined and yet not decided as to his specific line in science an opportunity to acquire a broad foundation in cultural subjects and a good start in at least two of the physical sciences.

CURRICULUM IN PHYSICS

Freshman Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
General Physics, Phys. 101	4	4	4
Algebra, Solid Geometry, Trigonometry, Math. 101, 102, and 103	5	5	5
Rhetoric and Composition, Eng. 101	3	3	3
American Economic History and Geography, Hist. 101	3	3	3
Military Science, Mil. 101, or Human Relations, Soc. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	18	18	18

Sophomore Year

Advanced Physics, Phys. 201	5	5	5
Analytical Geometry, Differential Calculus and Integral Calculus, Math. 201, 202, 203	5	5	5
General Inorganic Chemistry, Chem. 101, 103, and 105	4	4	4
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
Electives	2	2	2
	19	19	19

Junior Year

Mechanics, Phys. 301	0	3	3
Heat, Phys. 303	3	0	0
General Botany, Bot. 101, 102, or General Zoölogy, Zoöl. 101	4	4	4
General Economics, Econ. 103	3	3	3
German	3	3	3
Electives	1–4	1–4	1–4
	14–17	14–17	14–17

Senior Year

Electricity and Magnetism, Phys. 302	3	3	0
Light, Phys. 305	0	3	3
Undergraduate Research, Phys. 309	3	0	0
Modern Language	3	3	3
English	3	3	3
Introductory Sociology, Soc. 102	0	0	3
Electives	2–5	2–5	2–5
	14–17	14–17	14–17

THE TEXTILE SCHOOL

THOMAS NELSON, *Dean*

ORGANIZATION

Instruction in textile work has been given at State College since 1900, at which time the Textile Department was organized. The Board of Trustees at its meeting June 8, 1925, decided to expand the Textile Department and create the Textile School as one of the six major divisions of the College.

The Textile Building was enlarged, new equipment added, and other facilities, especially those for research, have been increased in order to serve adequately the textile industry. A complete program of instruction, research, and extension has been developed to meet the great opportunities and needs of the textile industry in the State and in the South.

The Textile School comprises the following divisions: (a) Yarn Manufacture, (b) Weaving and Designing, (c) Textile Chemistry and Dyeing, (d) Knitting, (e) Textile Research. The aim of each division is definite, and the courses and curricula offered make special contribution to the profession.

THE PURPOSE OF THE SCHOOL

The purpose of the Textile School is: (1) to promote the textile interests of the State by giving instruction in the theory and practice of all branches of the textile industry; (2) to coöperate with the textile mills of the State in securing, through scientific research and experimentation, reliable data pertaining to the textile industry; (3) to educate men for professional service in Textile Manufacturing, Yarn Manufacturing, Weaving and Designing, Knitting, Textile Chemistry and Dyeing, and at the same time develop their capacities for intelligent leadership so they may participate in public affairs; (4) to demonstrate the value of economic diversification and to aid in the development of the textile industry through research and experimentation.

North Carolina is the largest textile manufacturing state in the South and has more mills than any other state in America. It has the largest towel, damask, denim and underwear mills in America, and has more mills that dye and finish their own products than any other Southern state. A great diversification of manufactured textile products is being made in cotton, rayon, silk, and worsted.

Never before in the history of America have more opportunities been offered to young men of North Carolina and the South than are available today to graduates of the Textile School.

The courses of instruction are arranged and grouped so that students may get the best results from their work, and accumulate the necessary knowledge, which together with actual experience after graduation, enables them to fill such positions as:

Owners of mills;

Secretaries and treasurers of mills;

Managers, superintendents, and department foremen in cotton, rayon, silk and hosiery mills;

Superintendents and foremen in mercerizing, bleaching, dyeing and finishing plants;

Designers and analysts of fabrics;

Technical demonstrators in dyestuff industry;

Textile chemists;

Textile cost accountants in mills;

Purchasing agents for mills;

Salesmen of machinery, yarn, cloth, rayon, dyestuffs, and chemicals;

Positions in yarn and fabric commission houses and with fabric converters;

Specialists in Government Service;

Representatives for manufacturers of machinery, rayon, dyestuffs, and mill supplies.

INSPECTION TRIP

Each student is required to make an inspection trip during his senior year to mills making various classes of fabrics, also to bleaching, finishing, and hosiery plants.

RAYON

Rayon is an important factor in the development of the Southern Textile Industry as it is used extensively in the manufacture of fabrics, hosiery and underwear. It has opened up new fields of creative effort and greatly broadened the scope of textile manufacturing.

The Textile School is cognizant of this development and offers instruction in designing, warp preparation, weaving, dyeing and finishing of rayon fabrics and hosiery.

CURRICULA

The freshman and sophomore work is the same for all students in the Textile School. The training is general, and gives the student a good opportunity to make a wise choice in the selection of the particular field in which he desires to specialize.

TEXTILE CURRICULA FOR UNIVERSITY AND COLLEGE GRADUATES

Selected courses leading to the degree "Bachelor of Science" in Textiles are offered to graduates of universities and standard colleges. These are arranged in accordance with the vocational aim of the individual student and in the light of credits presented from the institution from which the student has been graduated, subject to the approval of his adviser and the director of instruction. In cases where the student presents enough credits which may be used for courses required in his curriculum he may be graduated with a B.S. degree in one year. In no case should it take more than two years to complete the work for his B. S. degree.

SHORT COURSE FOR TEXTILE MILL MEN

Instruction in yarn manufacturing, weaving, designing, fabric analysis and dyeing, lasting two weeks in the second term, is offered for textile mill men who wish to make a short and intensive study of any of these subjects. The subject-matter will be selected to suit the requirements of each individual.

DEGREES

Upon the completion of any one of the curricula in Textiles the degree of Bachelor of Science in Textiles is conferred.

The degree of Master of Science in Textiles is offered for the satisfactory completion of one year of graduate study in residence. Candidates for the degree of Master of Science in Textiles enter and are enrolled as graduate students in the Graduate School.

The professional degree of Master of Textiles may be conferred upon graduates of the Textile School after three years of professional practice in charge of important work and upon the acceptance of a satisfactory thesis.

ADMISSION

Each applicant for admission must present evidence that he has satisfactorily completed a four-year curriculum of not less than fifteen units in a secondary school which is approved by the State Department of Education.

Each applicant for admission must be at least sixteen years old and must submit fifteen units of credit from an accredited high school. Of these units 8.5 are in specified subjects and 6.5 in elective subjects.

ADVANCED STANDING

Students who have attended colleges of approved standing will be given credit for work completed there upon the presentation of the proper certificate to the Dean of the Textile School.

REQUIREMENTS FOR GRADUATION

A minimum of two hundred and twenty-two (222) term credits and two hundred and twenty-two (222) points is required for graduation from the Textile School. The term credits are distributed as follows: A maximum of sixty-six (66) special and thirty (30) general technical credits, a minimum of eighteen (18) term credits in Language, twenty-four (24) term credits in Physical Science, eighteen (18) term credits in Social Science, nine (9) term credits in Mathematics, twelve (12) term credits in Military Science or the alternatives, six (6) term credits in Physical Education, and thirty-six (36) term credits in general education and elective courses.

Students entering with advanced standing are required, during the remainder of their course, to earn at least as many points as the number of term credits remaining necessary for graduation.

COLLEGE EXTENSION COURSES IN TEXTILES

General information about College Extension Courses may be found in this catalog. Bulletins giving detailed information as to College Extension Courses are issued.

Plans for extension classes, lectures, and correspondence study in Textiles are announced elsewhere.

CURRICULUM IN TEXTILE MANUFACTURING

Freshman Year

Courses	Credits First Term	Second Term	Third Term
Rhetoric and Composition, Eng. 101	3	3	3
General Physics, Phys. 101	4	4	4
*Mathematical Analysis, Math. 100	3	3	3
Engineering Drawing I, M. E. 101	2	2	2
Shopwork, M. E. 104	1	1	1
Textile Principles, Tex. 101	2	2	2
Human Relations, Soc. 101, or Military Science, Mil. 101	2	2	2
Physical Training, P. E. 101	1	1	1
	18	18	18

Sophomore Year

Economics, Accounting, Social Problems, Econ. 102, 112, and Soc. 102	3	3	3
General Chemistry, Chem. 101, 103, and 105	4	4	4
Cotton, Cotton Classing, F. C. 105, 225	3	3	0
Yarn Manufacture I, Tex. 102, 103	1	0	4
Power Weaving, Tex. 107, 108	0	3	1
Fabric Structure and Analysis, Tex. 106	2	2	2
Knitting I, Tex. 104, 105	4	1	
Military Science, Mil. 102, or World History, Hist. 104	2	2	2
Physical Training, P. E. 102	1	1	1
	20	19	18

Junior Year

English or Modern Language	3	3	3
Yarn Manufacture II, Tex. 201, 202	1	4	1
Dobby Weaving, Tex. 207, 208	1	1	4
Decorative Design, A. E. 210	0	0	3
Fabric Design and Analysis I, Tex. 205	3	3	0
Dyeing I, Tex. 112, 113	4	1	1
†Electives	6	6	6
	18	18	18

Senior Year

Courses	Credits First Term	Second Term	Third Term
Industrial Management, Personnel Management, Econ. 230A, 240	3	3	3
Yarn Manufacture IV, Tex 301, 302	4	1	1
Cotton and Rayon Fancy Design I, Tex. 309	3	3	3
Cotton and Rayon Fancy Weaving, Tex. 312, 313	1	1	4
Cotton and Rayon Dyeing I, Tex. 210, 211	1	4	1
Fabric Analysis, Tex. 311	1	1	0
Fabric Testing, Tex. 109	0	0	1
†Electives	6	6	6
	19	19	19

* Mathematics 101—102—103 may be substituted for Mathematical Analysis and six other credits.

†Electives may be selected from any department of the College, with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

To those students who desire to place emphasis on industrial and mechanical lines, the following courses are suggested:

Courses	Credits		
	First Term	*Second Term*	*Third Term*
Heat Engines, M. E. 110	2	2	2
Machine Shop, M. E. 219	1	1	1
Electric Equipment of Mills, E. E. 104	0	3	3
Mill and Mill Village Sanitation, C. E. 214	3	0	0

To those students who desire to place emphasis on the marketing and distribution of textile products, the following courses are suggested:

Courses	Credits		
	First Term	*Second Term*	*Third Term*
Marketing Methods, Econ. 215	3	3	3
Advertising, Econ. 217	3	0	0
Sales Management, Econ. 218	0	3	3

To those students who desire to become teachers in industrial or evening schools, the following courses are suggested:

Courses	Credits		
	First Term	*Second Term*	*Third Term*
Educational Psychology, Ed. 203	3	0	0
Vocational Education, Ed. 321	0	3	0
Visual Aids, Ed. 208	0	0	3
Principles of Teaching, Ed. 210	3	0	0
Vocational Guidance, Ed. 320	0	3	0
Educational Tests and Measurements, Ed. 327	0	0	3

CURRICULUM IN TEXTILE CHEMISTRY AND DYEING

The freshman and sophomore years are the same as for Textile Manufacturing.

Junior Year

English or Modern Language	3	3	3
Qualitative and Quantitative Analysis, Chem. 111, 112 113	4	4	4
Dyeing II, Tex. 212, 213	5	5	2
†Electives	6	6	9
	18	18	18

Senior Year

Industrial Management, Personnel Management, Econ. 230A. 240	3	3	3
Organic Chemistry, Chem. 221	4	4	4
Textile Microscopy, Tex. 114	1	1	0
Fabric Testing, Tex. 109	0	0	1
Textile Printing, Tex 214, 215	4	1	1
Cotton and Rayon Dyeing II, Tex. 317, 318	2	5	5
†Electives	5	5	5
	19	19	19

SUGGESTED ELECTIVES

Courses	Credits *First Term*	*Second Term*	*Third Term*
Dobby Weaving, Tex. 207, 208	1	1	4
Fabric Design and Analysis I, Tex. 205	3	3	0
Principles of Fabric Finishing, Tex. 216, 217	1	1	4
Knitting II, Tex. 305, 306	1	4	1
Cotton and Rayon Fancy Weaving, Tex. 312, 313	1	1	4
Cotton and Rayon Fancy Design I, Tex. 309	3	3	3
Color in Woven Design, Tex. 315	3	3	0
Textile Calculations II, Tex. 316	0	0	3
Fabric Analysis, Tex. 311	1	1	0
Yarn Manufacture, Tex. 201, 301	3	3	0
Yarn Manufacture Laboratory, Tex. 202, 302	1	1	1
Heat Engines, M. R. 110	2	2	2
Machine Shop, M. E. 219	1	1	1
Mill and Mill Village Sanitation, C. E. 214	3	0	0
Electric Equipment of Mills, E. E. 105	0	3	3

†Electives not specified may be selected from any department of the College, with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

Principles of Fabric Finishing may be substituted for Fabric Testing; Textile Microscopy.

CURRICULUM IN WEAVING AND DESIGNING

The freshman and sophomore years are the same as for Textile Manufacturing.

Junior Year

English or Modern Language	3	3	3
Fabric Design and Analysis II, Tex. 206	3	3	3
Decorative Design, A. E. 210	0	0	3
Dobby Weaving, Tex. 207, 209	2	2	5
Architectural Drawing I, A. E. 105	1	1	1
†Electives	9	9	3
	18	18	18

Senior Year

Industrial Management, Personnel Management, Econ. 230-A, 240	3	3	3
Cotton and Rayon Fancy Design II, Tex. 310	4	4	4
Cotton and Rayon Fancy Weaving, Tex. 312, 314	2	2	5
Fabric Analysis, Tex. 311	1	1	0
Fabric Testing, Tex. 109	0	0	1
†Electives	9	9	6
	19	19	19

SUGGESTED ELECTIVES

Courses	Credits *First Term*	*Second Term*	*Third Term*
Heat Engines, M. E. 110	2	2	2
Machine Shop, M. E. 219	1	1	1
Yarn Manufacture, Tex. 201, 301	3	3	0
Yarn Manufacture Laboratory, Tex. 202, 302	1	1	1
Dyeing I, Tex. 112, 113	4	1	1
Cotton and Rayon Dyeing I, Tex. 210, 211	1	4	1
Knitting II, Tex. 305, 306	1	4	1
Color in Woven Design, Tex. 315	3	3	0
Textile Calculations II, Tex. 316	0	0	3
Textile Microscopy, Tex. 114	1	1	0
Mill and Mill Village Sanitation, C. E. 214	3	0	0
Electric Equipment of Mills, E. E. 105	0	3	3
Principles of Fabric Finishing, Tex. 216, 217	1	1	4
Architectural Drawing II, A. E. 201	1	1	1
Appreciation of Fine Art, A. E. 209	3	3	3

†Electives may be selected from any department of the College, with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

CURRICULUM IN YARN MANUFACTURING

The freshman and sophomore years are the same as for Textile Manufacturing.

Junior Year

English or Modern Language	3	3	3
Yarn Manufacture III, Tex. 203	0	3	3
Yarn Manufacture Laboratory III, Tex. 204	2	2	2
Dobby Weaving, Tex. 207, 208	1	1	4
Dyeing I, Tex. 112, 113	4	1	1
Textile Calculations I, Tex. 307	3	0	0
†Electives	5	8	5
	18	18	18

Senior Year

Courses	Credits *First Term*	*Second Term*	*Third Term*
Industrial Management, Personnel Management, Econ. 230-A, 240	3	3	3
Yarn Manufacturing V, Tex. 303, 304	5	5	2
Manufacturing Problems, Tex. 308	0	0	3
Fabric Testing, Tex. 109	0	0	1
†Electives	11	11	10
	19	19	19

SUGGESTED ELECTIVES

Heat Engines, M. E. 110	2	2	2
Machine Shop, M. E. 219	1	1	1
Fabric Design and Analysis I, Tex. 205	3	3	0
Knitting II, Tex. 305, 306	1	4	1
Color in Woven Design, Tex. 315	3	3	0
Textile Calculations II, Tex. 316	0	0	3
Cotton and Rayon Fancy Weaving, Tex. 312, 313	1	1	4
Cotton and Rayon Fancy Design I, Tex. 309	3	3	3
Cotton and Rayon Dyeing I, Tex. 210, 211	1	4	1
Fabric Analysis, Tex. 311	1	1	0
Textile Microscopy, Tex. 114	1	1	0
Mill and Mill Village Sanitation, C. E. 214	3	0	0
Electric Equipment of Mills, E. E. 105	0	3	3
Principles of Fabric Finishing, Tex. 216, 217	1	1	4

†Electives may be selected from any department of the College, with the consent of the advisor, but the total of 66 special technical and 96 total technical credits must not be exceeded.

TEXTILE RESEARCH

One of the most important developments in connection with the Textile School is the expansion of Textile Research. This will have a decided influence on cotton production as well as cotton manufacturing.

The aims of this research are:

1. A study of the cotton fibre from various sections of the cotton-growing areas of North Carolina and elsewhere, with special emphasis on their affinity for bleaching, dyeing, and mercerization.

2. Testing yarns and fabrics from different cottons to determine shrinkage, standard breaking strength, etc.

3. Testing starches used in sizing, and testing dyes and their properties.

4. Studying the problem of waste, due to selection of imperfect fibre, and improper use of machinery.

5. Testing the uses of the cotton fibre for mechanical as well as domestic uses and extending the research into market demands.

6. Studying designs and methods of finishing goods and the economic advantage to be derived from manufacturing fabrics of higher standards.

7. Studying the cotton mills of North Carolina, their mechanical equipment, and what gradual changes may be effected in order to meet the market demands of the future.

8. Investigating the possible mechanical uses of the cotton fibre, with a view to enlarging the demands for the fibre, thus making it possible to increase cotton production without creating a depressing effect on the producer.

State College has an ideal environment for the Textile School that will be helpful alike to the manufacturer and the cotton farmer. We have the cotton produced at the Experiment Station, and specialists in plant breeding, seed selection, soils, proper use of fertilizers, etc.

Other departments of the College are well equipped to give aid along mechanical and scientific lines.

The Textile Research Department is equipped with a full complement of machinery for yarn manufacturing, and also with the necessary apparatus for testing fibres, yarns, fabrics, analysis of starches and oils, photomicrography, and for other research.

It is, therefore, possible to make a complete study of fibre from the field to the finished fabric.

THE GRADUATE SCHOOL

COMMITTEE ON GRADUATE INSTRUCTION

SCOPE OF WORK

The Graduate School is organized to formulate and develop graduate study and research in the fields primarily of Agriculture, Engineering, and Textile Manufacturing, and in the business, the basic sciences and the training of teachers related to these subjects. The State of North Carolina at the present holds a definite prestige among the States of the Southeast in agricultural production and in certain types of engineering and manufacturing, and the need is apparent for a strong Graduate School, based on the best undergraduate instruction obtainable in these fields. This institution, therefore, offers training for teachers, investigators, and leaders in Agriculture, Engineering, Education, Manufacturing, Business and the basic Sciences; and in these pursuits the Graduate School maintains the same sound standards, principles, and ideals.

There is need of such a Graduate School in North Carolina, for if one is not provided, the inevitable result is that the institutions of higher learning in this section of the country must look elsewhere for trained men, and there should be a fair balance of men from every section of the country located in such an institution.

ADMINISTRATION

Subject to the final approval of the Faculty Council, the work of the Graduate School is directed by a Committee on Graduate Instruction, composed of one faculty member from each School. All subjects to be taken by graduate students are passed upon by the College Committee on Courses of Study. Actual instruction is given by the regular members of the faculty under the supervision of the Director of Instruction, the Head of the Department, or the Dean of the School in which the student is working.

FACILITIES FOR RESEARCH

State College offers exceptional facilities and opportunities for research. The Agricultural Experiment Station of North Carolina, the Engineering Experiment Station, and the Research Laboratories of the Textile School are integral parts of the College. In the Textile School, besides the research carried on by regular members of the staff, the Bureau of Agricultural Economics and other bureaus at Washington have, for some years, used the facilities of the School for special research. Graduate students have the advantages offered by all these agencies in addition to the regular laboratories used for instruction.

In its undeveloped resources and raw materials, as well as in its going concerns in business and industry, in its varied topography and products, North Carolina is a rich field for research. The State is already imbued with a spirit of progress stimulating to intellectual growth.

SCHOLARSHIPS AND FELLOWSHIPS

The College offers annually graduate scholarships and fellowships and a number of teaching and research fellowships. Besides these, special fellowships are supported by large business organizations.

College Scholarships give tuition and a stipend of $225 an academic year, paid in nine equal installments, a month apart, beginning October 25. The holder of one of these scholarships may be required to render a maximum of ten hours a week of service to the department in which he is specializing.

College Fellowships give tuition and a stipend of $450 an academic year, paid in nine equal installments, a month apart, beginning October 25. The holder of a fellowship may be required to render a maximum of ten hours a week of service to the department in which he is specializing.

Teaching and Research Fellowships give tuition and $750 an academic year. The holder of one of these fellowships may not carry more than half a full schedule of graduate studies. The rest of his time must be given to teaching in classroom or laboratory or to research in one of the Experiment Stations.

Special Fellowships have for some years, been maintained by business or manufacturing organizations desirous of having research made on certain problems pertaining to their interests. Some organizations maintaining these scholarships have been the National Fertilizer Association, The N. V. Potash Export My., The American Cyanimid Company, and The Superphosphate Institute. The stipends afforded by these fellowships have varied from $720 to $1500 for twelve months. It is hoped that some of these may be available for the year 1933-34.

REQUIREMENTS FOR ADMISSION AND DEGREES

Degrees

The Graduate School offers degrees for work done in residence and for work done during the practice of a profession.

Degrees in Residence

Master of Science in Agriculture
Master of Science in Engineering
Master of Science in Education
Master of Science in Textiles
Master of Science (pure, not applied)

Professional Degrees

Master of Agriculture
Master of Textiles
Civil Engineer
Ceramic Engineer
Chemical Engineer
Electrical Engineer
Mechanical Engineer

DEGREES IN RESIDENCE

Admission

1. A candidate for admission to the Graduate School must present an authorized transcript of his collegiate record as evidence that the candidate holds a bachelor's degree for a four years' undergraduate course from a college whose standards are equivalent to those of State College.

2. Admission to the courses given in the Graduate School does not necessarily mean that a student may immediately become a candidate for an advanced degree.

If the student is not prepared to do graduate work at once he may pursue undergraduate courses which will best fit him for advanced work.

3. A member of the senior class of State College may, upon the approval of the Committee on Graduate Instruction, register for graduate courses to fill a roster of studies not to exceed eighteen credits for any term.

Credits*

1. For all master of science degrees, forty-five term credits are required, a credit being given for an hour of class work successfully completed through a term. Besides the term credits, for all master of science degrees a thesis must be written and approved.

2. Not more than fifteen of the academic credits required for a graduate degree will be accepted from other institutions.

3. No graduate credit will be allowed for excess undergraduate credit from any other institution unless the institution is giving graduate work, conferring graduate degrees, and certifies that the credit offered is of graduate grade.

Courses of Study

As designated in the College Catalog under Description of Courses, the course numbered 400 to 499 are for graduate students only; those numbered 300 to 399 are for graduate and advanced undergraduates; those numbered 200 to 299 are for advanced undergraduates.

The program of the student shall contain at least twelve credits in courses of the 400 group. Nine credits in this group may be obtained in approved research courses. A maximum of 33 credits, upon which a minimum grade of C must be made, may be gained in the 300 group; and, not more than 9 credits with a required grade of B will be allowed in the 200 group.

The student's program of studies, made under the supervision of the student's adviser, must be approved by the Dean of the School in which the student is specializing and finally by the Committee on Graduate Instruction.

Thesis

A graduate student, candidate for the master's degree, must prepare under the supervision of the student's adviser a thesis upon a subject, approved by the adviser, in the field of the student's special work. The completed thesis must be presented to the Committee on Graduate Instruction at least one month before the degree is awarded.

Residence*

A candidate for a degree of master of science is required to be in residence at the College, pursuing graduate work, one full academic year of three terms. The candidate is not permitted to take course leading to the forty-five credits in a shorter time.

Six summer schools of six weeks in residence at the College are reckoned sufficient to fulfill the residence requirement. By specific approval of the Com-

*The above statements on term credits and residence are in force for all graduate students after Commencement, June, 1932, except that students who have partly fulfilled the requirements before this date will have their work pro-rated between the past and the present standards according to the amount already completed.

mittee on Graduate Instruction, one summer period may be spent away from the College if devoted to the preparation of the thesis required for graduation.

In special cases it is possible for graduate students to do twelve weeks work during a summer session, provided instructors will remain at the College throughout the summer. Under these provisions a minimum of four summer sessions, two of twelve weeks and two of six weeks, are required for residence.

Not in excess of nine term credits and a half term of residence credit toward a degree will be allowed for extension work taken in Raleigh; and not in excess of nine term credits and no residence credit will be allowed for extension work taken outside Raleigh.

Class Work and Examinations

As a mature student admitted to the Graduate School only after ability and earnestness are established, the graduate student is expected to assume greater individual responsibility, and since specializing, to work in a more comprehensive manner than the undergraduate. However, in preparation, in attendance, and in all the routine of class work, the graduate student is subject to the regulations observed in other divisions of the College.

Besides the examinations in class, the graduate student, at least two weeks prior to graduation, has a general examination on his work.

PROFESSIONAL DEGREES

Significance of Professional Degrees

The professional degrees are not honorary; they are tests of ability and testimonials of accomplishment. To merit the professional degree, a candidate must, in his thesis, demonstrate his ability to attack and to solve a new problem of sufficient complexity to require distinctly original processes of thought, and the solution of which shall make, however small, yet a real contribution to his profession. The record of his work must demonstrate his power to conceive, to plan, to organize, to carry through to completion a project of considerable magnitude. The candidate should quite obviously have grown professionally since his graduation and evince intellectual vitality to guarantee the continuance of his growth.

The conditions for awarding the degrees are as follows:

Requirements for Professional Degrees

1. A professional degree may be conferred upon a graduate of State College in the School in which the candidate received the bachelor's degree; besides, the degree of master of agriculture may be conferred upon graduates of other institutions who have performed outstanding professional service in agriculture for the State of North Carolina for a continuous period of not less than five years.

2. The degree of master of agriculture may be conferred upon graduates after five years of service in agriculture and upon the acceptance of a thesis.

The degree in engineering or in textiles may be conferred upon graduates of State College after three years' professional practice in responsible charge of important work, and upon the acceptance of a thesis on a subject related to the practice in which the applicant has been engaged.

3. Aplication for the degree must be presented to the Committee on Graduate Instruction not less than nine months before the degree may be conferred.

4. With the application (for a degree), the candidate must present, as preliminary basis for the degree, (1) the subject of a thesis he purposes to write, and (2) a statement in outline of his professional work since graduation, both of which must be approved by the Committee

5. The completed thesis must be submitted, on or before May 1, to the Committee for consideration, and, with it, a detailed statement, duly certified, of the candidate's professional work since graduation, upon which, in addition to the thesis, the degree is to be awarded.

6. Upon notification that thesis and work have been approved by the Committee as worthy basis for the degree, the candidate shall, upon a specified date, appear before the Committee for oral or written examination on his work and his thesis.

Correspondence about graduate work preferably should be addressed to the Dean of the School concerned.

COLLEGE EXTENSION DIVISION

FRANK CAPPS, *Director*

PURPOSE

The North Carolina State College of Agriculture and Engineering offers technical education in Agriculture, Engineering, Science and Business to all properly qualified students who come within its walls. There are many persons in North Carolina, however, who for various reasons cannot attend classes on the campus, although they have a desire and a need for the type of training which is offered by this institution. Therefore, the College offers correspondence courses, lecture courses and extension class instruction to the citizens of the State in the fields of Agriculture, Engineering, Science and Business.

FOR WHOM INTENDED

The College Extension Division offers courses similar to those given on the campus to any one who desires to take such courses and who is qualified to do the work. The courses offered, although making a general appeal, will be particularly helpful for the following classes of persons:

1. College students who are unable to pursue continued resident study.
2. Rural grade and high school teachers who cannot avail themselves of resident instruction.
3. Teachers and others who have partially completed work for a college degree and who desire to pursue work along some special line, or who desire further training to better equip themselves for their vocations.
4. Professional and business men who wish to supplement their training with technical information.
5. Farmers, county agents, and others who desire additional information and training in any phase of agricultural work.
6. Practical men engaged in the various industries who want to become more efficient in their occupations.

CREDITS

For admission to courses for college credit, the student must meet the regular college entrance requirements. Persons of mature age, however, who are qualified to do the work may be admitted without meeting the regular entrance requirements. The ability of the student to enter upon the work of any individual course is passed upon by the instructor in charge of the course. Not more than fifty term credits may be earned by correspondence.

Collegiate credit for courses completed by correspondence shall conform as nearly as possible to the same regulations that govern resident work. Correspondence courses are based upon the unit course, which is divided when practicable into sixteen assignments, representing a three-credit course for one term in residence. Variations from the unit course are indicated by the number of credits, or by the number of assignments or class meetings when college credits is not given. No student will be allowed to take more than two courses

by correspondence at one time, and it is recommended that one course be completed before beginning another.

Students may be admitted to the Graduate School for correspondence courses or work in absentia by meeting the requirements, information as to which will be furnished upon application to the Dean of the Graduate School; but no student can meet the requirements for one of the residence degrees without fulfilling the residence requirments.

The Division of Certification of the State Department of Public Instruction will credit toward State teachers' certificates certain courses completed by correspondence or extension classes for which the College gives credit toward a degree. It is possible, therefore, for teachers to earn both certification and degree credits at the same time.

FEES

For courses involving five term hours of credit a fee of $12 is charged, and a proportionate fee is charged for courses of less than five credit hours, based on a fee of $2.50 per term hour credit. No fees can be refunded after a course is once begun. The registration fee holds good for twelve months only, unless further time is granted by the Director of Extension.

COURSES

Any person who desires to obtain college credit by means of extension classes or by correspondence courses should write to the College Extension Division, requesting one of the extension bulletins which contains complete information concerning methods of instruction, fees, and the conditions upon which college credit will be granted. In all cases where college credit is desired a final examination must be taken by the student, either at State College or under the supervision of some one in the community designated by the College. The examination given will be parallel with that given for the same course at the College. If no college credit is desired the student may be excused from the examination.

The courses for correspondence study and extension classes are listed below:

Architectural Engineering 209; *Botany* Ex. 199; *Ceramic Engineering* 103-A*, 208*, 208-C*, 210-A*, 213*, 301*, 214*; *Chemical Engineering* 201*; *Chemistry* Ex. 199; *Economics* 102*, 211*; *Education* 101, 203*, 208, s303, 307, Ex. 342, Ex. s308, s305, s315, s316, 320*, 321*, 326, 322, Ex. 325, 327, 328, 330, 331, s334, 340, 340, 345, s351, s352*, Ex. 354-A, s354-A, 362, s364, 370, s371, Ex. 375*, Ex. 376, 377; *English* 101, 120*, 130, 150, 160, 220, 221, 223, 226, 227, 233, 235, 236, 250*, 251, s252, 256, Ex. 261, 319, 320, 325, 330, 332, 333, 334, 335, 336, 337; *Field Corps* 101*; *Geology* Ex. 199, 210*, 280, s291; *History* 101*, 103*, 104, 201*, 209*, 210, 301, 302*, 307, 310, Ex. 320, Ex. 321; *Horticulture* 101, 228; *Mathematics* 101, 102, 103, 201, 202, 203; *Mechanical Engineering* 102*; *Modern Languages* 101*, 102, 103*, 104, 105, 106*, 107, 208, 209, 310, 311, 312, 313, 314, 315, Ex. 316; *Physical Education* 117; *Physics* Ex. 199; *Poultry* 101*, 305*; *Sociology* 101, 102, 103*, 300*, 301, Ex. 302, 305, Ex. 306*, 307, 308, 310, 311*; *Soils* 110, Ex. 120, Ex. 215, Ex. 220, 270*, 310*, 315, 320*; *Zoology* Ex. 199, Ex.220, 208.

Practical Courses—Industrial Electricity*, Practical Engineering Drawing*, Practical Land Surveying*, Practical Mathematics*, Practical Radio*, Electrical Meters*.

*These courses are available by correspondence.

SUMMER SCHOOL

The Summer School of the North Carolina State College of Agriculture and Engineering begins with registration on Monday, June 19, and closes with final examinations on Friday, July 28, 1933. It is designed to meet the special needs of that group of persons interested particularly in the program of secondary education and in courses for college credit. There are subject-matter and special methods courses offered in practically all subjects taught in secondary schools. Courses for teachers of Industrial Arts and teachers of Trade and Industrial subjects are given. Graduate work will be given in Summer School in all fields where there is sufficient demand.

In addition to the courses just mentioned, the Summer School offers opportunities to college students wishing to get off work during the summer. The six weeks term enables a college student to do half the work of a full college term. It is also an opportunity for students to remove back work.

The Textile School, with its enlarged plant and equipment, has been placed at the command of the Textile industry of North Carolina, and during the Summer School, courses will be offered for any group of persons, either college students or men already engaged in the industry, to continue their training in textiles or to take special courses designed to increase the efficiency of the workers.

The courses in Cotton Classing are arranged to instruct the producer in grading staple, to induce him, in consequence, to try to grow cotton of better staple, and to aid him in selling his product to better advantage. They are open, also, to buyers of cotton. The courses are arranged for young and middle-aged men, and are not intended for boys or for men who lack earnestness of purpose. There are no entrance requirements for the Cotton Classing courses, except that the applicant should be well trained in English.

The regular session of State College is divided into three terms, consequently "credit" refers to term credit, or twelve weeks work, unless otherwise designated. In order for the college-credit courses to count for a full term's work, they will be given, if for five credits, ten periods a week; if for three credits, five periods a week.

A current bulletin of the Summer School, which may be obtained from the Registrar, gives complete detailed information.

Members of the Summer School will have access to the College Library, to the Raney Library, and to the State Library for reference work.

The College Infirmary, in charge of the hospital matron, will be conducted for the school. The College Physician will make daily visits to those who may be sick in the Infirmary.

This school is an approved State Summer School, and the courses offered have the approval of the State Department of Education.

DESCRIPTION OF COURSES

AGRICULTURAL ECONOMICS

Courses for Advanced Undergraduates

Agr. Econ. 260. Agricultural Economics. 0-3-0 or 0-0-3

Required of juniors in Agricultural Economics. Prerequisite: Econ. 102 or 103.

A study of the economics of agricultural production; the nature and characteristics of the factors of production; the laws relating to the combination of the factors; the factors affecting the choice of farm enterprises. Mr. Forster.

Agr. Econ. 261. Farm Management I. 0-0-3

Required of juniors in Agricultural Economics, Agriculture and Vocational Education. Prerequisite: Econ. 102 or 103.

The principles involved in the successful operation of the farm, farm planning, management of labor, work programs, use of machinery, and farm administration. Mr. Forster.

Agr. Econ. 262. Farm Accounting. 0-0-3

Required of juniors in Vocational Agriculture. Prerequisite: Econ. 102.

The practical aspects of farm accounting, preparation of inventories of farm property, simple financial statements, method of keeping farm records, analysis and the interpretation of results obtained from farm business transactions. Mr. Forster.

Agr. Econ. 263. Farm Cost Accounting. 0-0-3

Required of juniors in Agricultural Economics. Prerequisite: Econ. 102 or 103, and 201.

The principles of accounting applied to farm transactions, the preparation of financial statements, the methods of keeping farm records, analysis of an individual farm record, and the interpretation of cost accounting results. Mr. Forster.

Agr. Econ. 265. Agricultural Marketing. 3-0-0

Required of seniors in Agricultural Economics, Agriculture, and Vocational Education. Prerequisite: Econ. 102 or 103.

The economic principles underlying successful marketing of farm products, market organization and control, price-making forces and critical examination of the present system of marketing farm products. Mr. Knapp.

Agr. Econ. 268. Grades, Standards, and Inspection. 0-3-0

Required of seniors in Agricultural Economics. Prerequisite: Econ. 102 or 103.

History of the grades and standards of important agricultural products, together with the technic of inspection. Mr. Knapp.

Courses for Graduates and Advanced Undergraduates

Agr. Econ. 362. Farm Management II. 0-0-3

Required of seniors in Agricultural Economics. Prerequisite: Agr. Econ. 261.

The application of farm management principles to the management and organization of farms in typical regions of the State. Mr. Forster.

Agr. Econ. 363. Agricultural Coöperation. 0-3-0

Required of seniors in Agricultural Economics. Prerequisite: Econ. 102 or 103.

Specific consideration is given to local community coöperation, both economic and social, farmers' buying, selling, and service organizations. Mr. Knapp.

Agr. Econ. 364. Land Economics. 0-0-3

Elective. Prerequisite: Econ. 103, Agr. Econ. 260, and 6 additional term credits in Economics.

The economic problems connected with the ownership and acquisition of land, tenancy and land ownership, the functions of the landlord and the tenant, land valuation and land speculation. Mr. Forster.

Agr. Econ. 366. Marketing Methods and Problems. 3-0-0

Required of seniors in Agricultural Economics.

Prerequisite: Econ. 103, Agr. Econ. 260, and 6 additional term credits in Economics.

A careful study of the problems and methods involved in the marketing of farm products. Suggestions for improvement will be stressed. Mr. Knapp.

Agr. Econ. 367. Agricultural Finance. 0-3-0

Elective. Prerequisite: Econ. 102, Agr. Econ. 260, and 6 additional term credits in Economics.

Principles involved in financing the production and marketing of agricultural products. Consideration of farm mortgage credit, personal and intermediate credit, and agricultural taxation. Mr. Knapp.

Agr. Econ. 368. Cotton and Tobacco Marketing. 3-0-0 or 0-3-0

Required of seniors in Agricultural Economics. Prerequisite: Econ. 102, Agr. Econ. 260, Agr. Econ. 265, and 3 additional credits in Economics.

Problems arising in connection with cotton and tobacco. Particular attention to the marketing machinery. Mr. Knapp.

Courses for Graduates Only

Agr. Econ. 403. Economics of Agricultural Production. 3-0-0

Prerequisite: Econ: 103, Agr. Econ. 260, and 6 additional term credits in Economics.

Economic theories relating to agricultural production. The nature and characteristics of the factors of production, the law of variable proportion, the law of diminishing return, and the theory of least cost. Mr. Forster.

Agr. Econ. 404. Farm Organization and Management. 0-3-0

Prerequisite: Econ. 102, Agr. Econ. 261, 362, and 9 additional term credits in Economics.

Review and application of economic principles discussed in Course 362.

Mr. Forster.

Agr. Econ. 405. Agricultural Finance and Taxation. 0-0-3

Prerequisite: Econ. 103, Agr. Econ. 367, and 6 additional term credits in Economics.

Problems in financing agricultural production and marketing, and methods of taxation as they affect agriculture. Recent legislation is emphasized.

Mr. Knapp.

Agr. Econ. 406. Cooperative Marketing Methods and Practices. 0-0-3

Prerequisite: Econ. 103, Agr. Econ. 265, and 6 additional term credits in Economics.

A critical study of the methods and practices used by large agricultural cooperatives. Mr. Knapp.

Agr. Econ. 407. Research Method and Procedure in Agricultural Economics and Rural Sociology. 2-2-2

Prerequisite: Economics 103, 212, and 6 additional term credits in Economics.

To introduce to the students the research method and procedure now being employed by research workers in the field of Agricultural Economics, including qualitative, quantitative, inductive, and deductive methods and research procedure, choice of projects, planning, and execution of the research project.

Mr. Hamilton.

AGRICULTURAL ECONOMICS—RURAL SOCIOLOGY

Courses for Graduates and Advanced Undergraduates

Rural Soc. 302. Rural Sociology. 0-3-0 or 0-0-3

Prerequisites: Soc. 103 or Econ. 103. Required of juniors in Rural Sociology, seniors in Agricultural Economics, and juniors in certain Education curricula.

The culture, social organization, and social problems of rural people with special reference to Southern rural life and proposed programs of development.

Mr. Hamilton.

Rural Soc. 303. Farmers' Movements. 0-0-3

Prerequisite: Rural Soc. 302. Required of seniors in Agricultural Economics and Rural Sociology.

The origin, growth, and the present status of such national farmers' organizations and movements as: the Grange, the Farmers' Alliance, the Populist Revolt, the Agricultural Wheel, the Farmers' Union, the Society of the Equity, the Non-Partisan League, the Farm Bureau, the Farm-Labor Union, and the Cooperative Marketing Movement. Mr. Hamilton.

Rural Soc. 304. Rural Social Traits and Attitudes. 0-3-0

Prerequisite: Rural Soc. 302. Required of seniors in Rural Sociology.

The characteristic social traits and attitudes of rural people in relation to rural social organizations and rural institutions. Mr. Hamilton.

Rural Soc. 305. Community Organization. 0-0-3

Prerequisite: Rural Soc. 302. Required of seniors in Rural Sociology and in Agricultural Teaching.

Community organization in North Carolina and other states. Community structure and size, community institutions and service agencies, community disorganization, methods of community organization, leadership and the relation of community organization to state and national agencies. Mr. Hamilton.

Courses for Graduates Only

Rural Soc. 410. Advanced Rural Sociology. 0-3-3

Prerequisites: Rural Sociology 302, and 6 additional term credits in either Rural Sociology or Agricultural Economics.

Historical forms of rural society; differentiation and mobility of farmer and peasant classes; bodily, vital, mental, and moral characteristics of rural as compared with urban groups; relation of farm people to other social groups; standards and planes of living; rural institutions and culture; national agrarian policy; and a critical review of current research in rural sociology.
Mr. Hamilton.

Rural Soc. 412. Research in Agricultural Economics and Rural Sociology. 3-3-3

Research problems in agricultural production, marketing, finance, taxation, population, community organization, family life, standards of living and social attitudes. Staff.

AGRICULTURAL ENGINEERING—AGRONOMY

Courses for Undergraduates

Agr. Eng. 130. Farm Equipment. 3-0-0 or 0-3-0

Required of sophomores in Agriculture.

A study of modern mechanical equipment for the farm. Mr. Weaver.

Agr. Eng. 135. Terracing and Drainage. 0-0-3

Required of juniors in General Agriculture.

A study of the different methods of disposing of surplus water and the prevention of erosion. Mr. Weaver.

Agr. Eng. 145. Farm Buildings. 0-0-3

Required of seniors in General Agriculture. Elective for all juniors and seniors.

A study of the design, construction, and materials used in modern farm buildings. Mr. Weaver.

Agr. Eng. 147. Farm Conveniences. 0-3-0

Required of seniors in General Agriculture. Elective for all juniors and seniors.

A study of farm water supply systems, electric lighting plants, heating and sewage disposal systems as regards installation, adjustment, and repair.

Mr. Weaver.

Agr. Eng. 155. Farm Engines. 0-3-0

Elective for all juniors and seniors.

The principle of gas engine operation, its application to single and multiple cylinder engines, and the repair and adjustment of engines. Mr. Weaver.

Courses for Advanced Undergraduates

Agr. Eng. 217. Teaching of Farm Shop Work. 3-3-0

Required of juniors in Agricultural Education.

This course is designed for men intending to teach Vocational Agriculture in the high schools of this State. Methods of presenting the subject-matter to students as well as the manipulation of wood-working, forging, soldering, pipe fitting, and harness repairing tools. Mr. Weaver.

Agr. Eng. 218. Agricultural Drawing. 0-3-0

Elective for juniors and seniors.

Drawing-board work covering both free-hand sketching and elementary mechanical drawing. Working and pictorial drawing, lettering, maps, graphs, tracing and blue-printing. Mr. Weaver.

Agr. Eng. 250. Farm Machinery and Tractors. 0-3-0

Prerequisite: Agr. Eng. 155. Elective for juniors and seniors.

A study of the design, construction and operation of modern labor-saving machinery. Mr. Weaver.

Courses for Graduates and Advanced Undergraduates

Agr. Eng. 355. Special Problems in Agricultural Engineering. 3-3-3

Prerequisite: Agr. Eng. 130, 135, 145, and 155.

This course is designed to meet the needs of students who desire advanced work in one of the following branches of Agricultural Engineering: Gas Engines, Tractors, Lighting Plants, Farm Machinery, and Drainage. Mr. Weaver.

Agr. Eng. 350. Senior Seminar. 1-1-1

Prerequisite: Senior standing in Agricultural Engineering. Elective for seniors.

Students will be assigned special problems the results of which are to be presented to the class. Mr. Weaver.

Agr. Eng. 360. Agricultural Drainage. 0-0-3

Prerequisite: Agr. Eng. 130, 135, and Soils 110, 115. Elective for seniors.

The purpose of this course is to go into the causes, effects, and methods of conserving our greatest national resource—our fertile soil. Mr. Weaver.

Agr. Eng. 365. Farm Structures. 0-3-0 or 0-0-3

Prerequisite: Agr. Eng. 130, 145, and A. H. 101. Elective for seniors.

An advanced study of modern building methods as applied to farm structures. The use of labor-saving barn equipment and methods of reducing labor to minimum is stressed.

The placing of the farm group in relation to topography and farm activities, from the standpoint of economy, appearance, and utility, is an important phase of the course.

ANIMAL HUSBANDRY

Courses for Undergraduates

A. H. 101. Animal Husbandry. 0-3-3

Required of freshmen in Agriculture.

A study of types and characteristics of farm animals; winter term devoted to dairy cattle, horses and mules, and spring term to beef cattle, sheep and swine. Mr. Ruffner, Mr. Haig, Mr. Naree.

A. H. 102. Animal Nutrition I. 0-0-5

Required of sophomores in Agriculture. Prerequisite: Chem. 101.

A study of animal nutrition ,physiology of digestion; nutrients; feeding standards; economical and balanced rations. Practical work given.

Mr. Ruffner, Mr. Haig.

A. H. 103. Dairying. 0-3-0 or 3-0-0

Required of sophomores in Agriculture. Elective for freshmen in Vocational Agriculture.

The secretion, composition, and properties of milk are studied, with factors influencing quality and quantity of milk and cream. The use of the Babcock tests, buttermaking on the farm, operation of cream separators, constitute the laboratory work. Mr. Haig.

Courses for Advanced Undergraduates

A. H. 201. Swine Production. 3-0-0

Required of juniors in general agriculture. Prerequisite: A. H. 101, 102.

A study of adaptability of swine, with emphasis on feeding, judging, and management. Mr. Hostetler.

A. H. 202. Animal Breeding. 4-0-0

Elective for seniors in Agriculture. Prerequisite: Zool. 201, A. H. 101.

A study of breeding and improvement of our domestic animals; a first hand study of successful breeding establishments and their problems. Mr. Ruffner.

A. H. 203. Advanced Stock Judging. 0-0-3

Elective for juniors and seniors. Prerequisite: A. H. 101.

A study of market and show-ring requirements in the selection of horses and mules, beef cattle, dairy cattle, sheep, and swine. Breed characteristics of these animals are studied in detail, and practice judging brings out the relationship of form to function in livestock production. Mr. Haig.

A. H. 204. Dairy Cattle and Milk Production. 3-0-0

Elective for seniors in Agriculture. Prerequisite: A. H. 103.

A study of management of dairy cattle for economical milk production, including dairy breed characteristics, adaption, selection, management, feeding, calf raising and dairy barn equipment. Mr. Haig.

A. H. 205. Sheep Production. 0-0-3

Prerequisite: A. H. 101, 102.

A study of the establishment, care, and management of the farm flock. Mr. Foster.

A. H. 206. Farm Meats I. 3-0-0 or 0-3-0

Elective for juniors and seniors.

A study of the composition and value of meat, with practice work in slaughtering and cutting. Mr. Nance.

A. H. 207. Farm Meats II. 0-3-0

Elective for juniors and seniors. Prerequisite: A. H. 206.

Special study and practice in making retail cuts and in curing pork, beef, and lamb. Mr. Nance.

A. H. 209. Horse and Mule Production. 3-0-0

Elective for seniors. Prerequisite: A. H. 101.

A study of practical methods in production and management of horses and mules for work on farms under southern conditions. Special study of use of home-grown feeds for horses and mules at work or idle. Mr. Haig.

A. H. 210. History of Breeds. 0-0-3

Elective for juniors. Prerequisite: A. H. 202.

A study of history and development of pure-bred livestock; herd books; pedigrees; leading strains and families of the different breeds of animals. Mr. Ruffner.

A. H. 211. Animal Nutrition II. 0-3-0

Elective for seniors. Prerequisite: A. H. 102.

A study of the chemistry and physiology of nutrition and the processes of animal life; recent scientific publications are studied. Mr. Ruffner.

A. H. 212. Creamery Buttermaking. 4-0-0

Elective for juniors and seniors.

This course deals with the principles and practices of factory buttermaking, from the care of the cream on the farm through the different processes until ready for marketing. Mr. Clevenger.

A. H. 213. Testing of Milk Products.

Elective for juniors and seniors.

Lectures and laboratory practice on the testing of milk and milk products for butterfat, acidity, adulteration, preservatives, sediment, etc., that are ordinarily used by dairy manufacturing plants or in milk inspection work.

Mr. Clevenger.

A. H. 214. Cheesemaking. 0-0-3

Elective for juniors or seniors.

Lectures and laboratory practice in the making of various soft and hard cheeses usually made on a farm or in a cheese factory. Mr. Clevenger.

A. H. 215. Dairy Manufacture Practice. 0-3-0

Elective for juniors and seniors.

Lectures and laboratory practice on the business and factory management methods used in dairy plants. Mr. Clevenger.

A. H. 216. City Milk Supply. 0-0-4

Elective for juniors and seniors.

Lectures and laboratory practice; the phases of the city milk supply from the standpoint of the Milk Inspector and Board of Health; the methods and processes used in a central pasteurizing milk distribution plant and the dairymen supplying milk to same; the raw retail milk distributor and his problems.

Mr. Clevenger.

A. H. 217. Ice Cream Making. 4-0-0

Elective for juniors and seniors.

Standardizing of mixing and freezing of ice cream, sherbets, and other frozen products, and the physical principles involved; types of freezers, flavoring materials, fillers and binders; ice cream standards. The theory and practice of refrigeration and its use in the ice cream plant. Mr. Clevenger.

A. H. 218. Comparative Anatomy and Physiology of Domestic Animals. 3-0-0

Prerequisite: Zool. 102.

A course dealing with the structure and functions of the animal body. Laboratory, lectures, and recitations. Mr. Grinnells.

A. H. 219. Common Diseases. 0-3-0

Prerequisite: A. H. 218.

A study of contagious, non-contagious, and parasitic diseases of farm animals. Laboratory, lectures, recitations. Mr. Grinnells.

A. H. 220. Senior Seminar. 1-1-1

Required of seniors in Animal Husbandry. Prerequisite: A. H. 101, 102.

A discussion of livestock problems by extension and research workers, together with special assignments to students with regard to various phases of the industry. Animal Husbandry Staff.

A. H. 221. Animal Hygiene and Sanitation. 1-1-1

Prerequisite: A. H. 219, Botany 203.

Animal health and prevention of disease as affected by environment. Lectures, reference reading, recitations. Mr. Grinnells.

A. H. 222. Dairy Machinery. 0-1-0

Elective for juniors and seniors.

Lecture and demonstration on the installation, kind, care, and handling of dairy plant equipment, including the refrigerating unit, pipe fitting, soldering, etc. Mr. Clevenger.

A. H. 223. Dairy Products Judging. 0-0-1

Elective for juniors and seniors.

A course of training for students in judging all dairy products according to official standards and commercial grades. Mr. Clevenger.

A. H. 224. Beef Cattle Production. 0-3-0

Elective for juniors and seniors.

A study of the feeding, care, and adaption of beef cattle to North Carolina conditions. Mr. Foster.

Courses for Graduates and Advanced Undergraduates

A. H. 301. Dairy Manufactures. 3-3-3

Prerequisite: A. H. 101, and 12 hours of the dairy manufacturing courses.

Special problems dealing with the manufacture and marketing of dairy products. Mr. Clevenger.

A. H. 304. Herd Improvement. 0-0-3

Prerequisite: A. H. 101, 102, 103. Elective for juniors and seniors.

This course is designed for training students as supervisors of Herd Improvement Associations in North Carolina. Rules for Advanced Registry are studied, and practical work in keeping feed costs, the Babcock Test, and bookkeeping necessary for dairy associations. Mr. Haig.

A. H. 307. Problems in Advanced Animal Breeding. 3-0-0-, 0-3-0, or 0-0-3

Prerequisite: A. H. 202.

A study of the physiology of reproduction. Methods and problems of breeders; influence of pedigree, herd books, and Mendelism in animal breeding. Mr. Ruffner.

A. H. 308. Stock Farm Management. 0-0-3

Prerequisite: A. H. 102. Elective for seniors.

A study of successful methods of operating farms devoted chiefly to livestock production; special reference is made to best systems applied to North Carolina conditions. Mr. Ruffner.

A. H. 309. Home Tanning. 3-0-0 or 0-3-0

Elective for juniors and seniors. Prerequisite: A. H. 206.

Application of different methods in curing and tanning hides and pelts.

Mr. Nance.

A. H. 310. Pure-bred Livestock Production. 0-3-0

Elective for seniors and graduate students. Prerequisite: A. H. 102, 201.

A study of the pure-bred livestock industry. Lectures and discussion supplemented by assignments from current periodicals and breed papers. Special study of the selection of livestock best suited to different localities. Mr. Ruffner.

Courses for Graduates Only

A. H. 402. Research Studies in Animal Husbandry. 3-0-0, 0-3-0, or 0-0-3

Prerequisite: Eighteen (18) credits in Animal Husbandry.

An intensive study of experimental data. Staff.

A. H. 404. Advanced Nutrition. 3-0-0, 0-3-0, or 0-0-3

Prerequisite: A. H. 102, 211.

A survey of experimental feeding, together with a study of the fundamental and practical feeding problems of the various sections of the country. A study is made of the effects of various feeds on growth and development. Animals are used in demonstrating the effects of these various nutrients and rations.

Mr. Ruffner.

A. H. 408. Special Problems in Dairy Manufacturing Practice. 3-3-3

Prerequisite: Eighteen (18) term credits in A. H.

Available for graduate students interested in special dairy manufacturing problems under definite supervision and approval. Mr. Clevenger.

A. H. 409. Seminar. 1-1-1

Prerequisite: Eighteen (18) term credits in A. H.

Members of the seminar will be assigned subjects which will be reviewed and discussed. Review of literature, scientific reports and Experiment Station bulletins. Oral and written reports. Animal Husbandry Staff.

ARCHITECTURAL ENGINEERING

Courses for Undergraduates

A. E. 101. Elements of Design, Shades and Shadows, Perspective. 3-3-3

Required of sophomores in A. E. Prerequisite: M. E. 102.

The Classic Orders of Architecture, and their composition. The determination of conventional shades and shadows. Perspective drawing.

Mr. Shumaker Mr. Paulson.

A. E. 102. Elements of Design. 2-2-2

Required of sophomores in Land. Arch. Prerequisite: M. E. 102.

The Classic Orders of Architecture, and their composition.

Mr. Shumaker, Mr. Paulson.

A. E. 103. Freehand Drawing. 2-2-2

Required of juniors in A. E.

Freehand drawing from cast and still life and objects of nature; media of pencil, charcoal, pen and ink, water colors. Outdoor sketching. Freehand perspective. Mr. Paulson.

A. E. 104. Masonry Construction. 2-0-0

Required of juniors in A. E.

A study of building materials and methods of construction.

Mr. .....

A. E. 105. Architectural Drawing I. 1-1-1

Required in Constr. E. and Land. Arch.

Freehand drawing from cast and still life; media of pencil, charcoal, and water colors. Mr. Paulson.

A. E. 107. Building Sanitation. 0-0-2

Required of juniors in A. E.

Studies of water supply, soil, waste, and vent-pipe systems. Plumbing fixtures and their installation. Mr. Geile.

Courses for Advanced Undergraduates

A. E. 201. Architectural Drawing II. 1-1-1

Required in Land. Arch.

Freehand drawing from cast, still life, and objects of nature. Pen and ink. Freehand Perspective. Outdoor sketching. Mr. Paulson.

A. E. 202. Architectural Design I. 3-3-3

Required of juniors in A. E. Prerequisite: A. E. 101.

Analytique. Application of the Classic Orders in composition. Registration in the Beaux-Arts Institute of Design may be required.

Mr. Shumaker, Mr. Paulson.

A. E. 203. Working Drawings. 3-0-0

Required of juniors in A. E. Prerequisite: A. E. 101.

The preparation of working and detail drawings to scale. Mr. Shumaker.

A. E. 204. Architectural Design II. 2-2-2

Required of seniors in A. E. Prerequisite: A. E. 202.

Class B—Projet. Problems in plan and composition. Registration in the Beaux-Arts Institute of Design may be required. Mr. Shumaker, Mr. Paulson.

A. E. 205. Professional Practice. 2-2-2

Required of seniors in A. E. Prerequisite: A. E. 202.

Professional ethics. Supervision, estimating, specifications. Theory of design, scale, and proportion. Mr. Shumaker.

A. E. 206. History of Architecture. 2-2-2

Required of juniors in A. E. Prerequisite: A. E. 101 or 102.

Historical study of architecture from antiquity to modern times. Illustrated lectures. Library research with sketching. Mr. Paulson.

A. E. 207. Office Practice. 2-2-2

Required of seniors in A. E. Prerequisite: A. E. 203.

The drawing of plans and elevations from sketches. Detailing at large scale various parts of construction according to best practices. Mr. Shumaker.

A. E. 208. History of Ornament. 0-3-0

Required of seniors in A. E. Prerequisite: A. E. 206.

Development of historic styles of ornament in architecture and the decorative arts. Periodic drawing. Mr. Shumaker, Mr. Paulson.

A. E. 209. Appreciation of Fine Art. 3-3-3, or 3-0-0, 0-3-0, 0-0-3

First term required of juniors in Constr. E. Prerequisite: junior standing.

Principles of art. Study of those qualities which constitute great art. First term, architecture; second term, painting; third term, sculpture and minor arts. Mr. Paulson.

A. E. 210. Decorative Design. 0-0-3

Required of juniors in the Textile School.

Freehand drawing and creative designing of decorative motives adaptable to weaving and cloth printing. Mr. Paulson.

Courses for Graduates and Advanced Undergraduates

A. E. 301. Architectural Design III. 3-3-3

Prerequisite: A. E. 204.

Class A—Projet. Advanced problems in design. Archaeology. Measured Drawings. Registration with the Beaux-Arts Institute of Design is required. Mr. Shumaker.

Courses for Graduates

A. E. 401. Historic Research. 3-3-3

Prerequisite: A. E. 206, 208.

Research in Architecture and Art from ancient times to the present. Mr. Paulson.

BOTANY

Courses for Undergraduates

Botany 101, 102. General Botany. 4-4-0

Required of freshmen or sophomores in Agriculture.

The first term deals with the nature of the higher (crop type) plants; the second involves a survey of the major lower plant groups with the emphasis upon the economic forms (bacteria and fungi).

Mr. Wells, Mr. Shunk, Mr. Anderson, Mr. Whitford.

Courses for Advanced Undergraduates

Botany 201. Diseases of Field Crops. 3-0-0

Elective for juniors and seniors. Prerequisite: Bot. 101, 102, 209.

A study of the more important diseases of field crops, such as cotton, tobacco, corn, small grains, legumes and grasses. Major emphasis is placed on symptoms, cause, and control. Mr. Lehman.

Botany 202. Diseases of Fruit and Vegetable Crops. 0-0-3

Elective for juniors and seniors. Prerequisite: Bot. 101, 102, 209.

Lectures and laboratory studies of importance, causes, symptoms and control of diseases affecting these crops. Mr. Poole.

Botany 203. General Bacteriology. 0-4-0

Prerequisite: Bot. 101, 102, or Zool. 101.

An introduction to the principles of bacteriology. Laboratory work on modern cultural methods of handling and studying bacteria. Mr. Shunk.

Botany 204. Systematic Botany. 0-0-3

Elective in Agriculture and Science. Prerequisite: Bot. 101, 102.

An introduction to the local flora and the classification of the plants included therein. Mr. Wells, Mr. Shunk, Mr. Whitford.

Botany 205. Plant Microtechnique. 0-0-3

Elective in Agriculture and Science. Prerequisite: Bot. 101, 102.

Materials and processes involved in the preparation of plant structures for microscopic examination. Mr. Anderson.

Botany 206. Rural Sanitation. 0-3-0

Required of seniors in General Agriculture. Elective for others.

A combination course on the relation of bacteria and insects to rural public health; meat and other food and water inspection; health laws.
Mr. Shunk, Mr. Whitener, Mr. Grinnells, Mr. Weaver.

Botany 207. Dendrology. 3-0-3

Required of sophomores in Forestry. Prerequisite: Bot. 101, 102.

Introduction to the trees of the eastern United States.
Mr. Wells, Mr. Shunk.

Botany 208. Diseases of Forest Trees. 3-0-0

Required of seniors in Forestry. Prerequisite: Bot. 101, 102, 209.

Lectures and laboratory studies of importance, causes, symptoms and control of diseases affecting trees and their products. Mr. Poole.

Botany 209. Plant Physiology. 3-3-0

Prerequisite: Bot. 101, 102.

A study of the activities of living plants with special emphasis upon the fundamental principles concerned. Mr. Anderson.

Botany 210. Aquatic Biology. 0-0-2

Required of Sanitary Engineers. Elective in Agriculture and Science. Prerequisite: Bot. 101, 102.

Identification and control of the aquatic algae and protozoa which give trouble in reservoirs. A survey of the higher water and marsh plants is also included.

Mr. Whitford.

Courses for Graduates and Advanced Undergraduates

Botany 301. Advanced Plant Pathology. 5 or 5 or 5

Elective. Prerequisite: Bot. 101, 102, 201, 209, or 202.

A course designed to give the student training in those methods of investigation which are most useful in the study of plant pathological problems.

Mr. Lehman or Mr. Poole.

Botany 302. Advanced Bacteriology. 0-3-0

Prerequisite: Bot. 101, 102, 203, 209.

A study of the methods used in the bacteriological analysis of water and milk. Mr. Shunk.

Botany 303 and 304. Plant Morphology. 3-3-0

Elective in Agriculture and Science. Prerequisite: Bot. 101, 102, 204.

An advanced survey of plants; the lower groups are given the first term, the higher (land plants) the second. Mr. Wells, Mr. Shunk.

Botany 305. Mycology. 0-3-3

Prerequisite: Bot. 101, 102.

A course dealing with the structure, identification and classification of fungi. Special attention is given to species parasitic on crop plants. Mr. Lehman.

Botany 306. Advanced Plant Physiology. 3-0-0 or 0-3-0 or 0-0-3

Prerequisite: Bot. 101, 102, 209.

A critical and comprehensive treatment of the various aspects of plant physiology. Particular attention is given to basic principles and to recent developments. Mr. Anderson.

Botany 307. Plant Ecology. 3-0-0

Elective in Agriculture and Sceince. Prerequisite: Bot. 101, 102, 209.

Environmental control of plant distribution with emphasis upon the habitats and vegetations of North Carolina. Mr. Wells.

Botany 308. Microanalysis of Plant Tissue. 0-0-3

Prerequisite: Bot. 101, 102, 209.

The identification in plant tissue of mineral elements and organic compounds and the physiological significance of these materials. Mr. Anderson.

Botany 309. Soil Microbiology. 0-0-3

Elective in Agriculture and Science. Prerequisite: Bot. 101 ,102, 203, 209.

A study of the more important microbiological processes that occur in soils: decomposition of organic materials, ammonification, nitrificaton and nitrogen fixation. Mr. Shunk.

Courses for Graduates Only

Botany 401. Pathology of Special Crops. 3-3-3

Prerequisite: Bot. 201 or 203, 301.

A comprehensive study of the etiology, symtoms, and control of specific diseases. Mr. Lehman or Mr. Poole.

Botany 402. Bacteriology: Special Studies. 3-3-3

Prerequisite: Bot. 203, 302.

Special work on restricted groups of bacteria such as nitrogen bacteria of the soil, milk organisms and special groups of bacteria in water. Mr. Shunk.

Botany 403. Systematic Botany. 3-0-0 or 0-0-3

Prerequisite: Bot. 204, 303, 304.

An advanced survey of restricted groups of plants involving organization and distribution problems. Mr. Wells.

Botany 404. Plant Physiology. 3-3-3

Prerequisite: Bot. 306, 209.

Critical study of some particular problem, involving original investigation together with a survey of pertinent literature. Mr. Anderson.

Botany 405. Plant Ecology. 3-0-0 or 0-0-3

Prerequisite: Bot. 204, 307.

Minor investigations in vegetation-habitat problems accompanied by advanced reference reading. Mr. Wells.

Botany 406. Research in Botany. 3-3-3

Prerequisite: 30 hours 100-300 courses in Botany.

Botany 407. Seminar. 1-1-1

Attendance by the student upon the weekly seminar together with the presentation of a paper in his major field of research. Mr. Wells.

CERAMIC ENGINEERING

Courses for Undergraduates

Cer. E. 103. Ceramic Materials. 0-3-0

Required of sophomores in Ceramic Engineering, and of seniors in Mining Engineering.

Prerequisite: Geol. 201.

The origin and occurrence of ceramic raw materials, their chemical and physical properties and systems of measuring them. Mr. Greaves-Walker.

Cer. E. 104. Ceramic Processes. 0-0-3

Required of sophomores in Cer. E.

The winning and preparation of ceramic materials and the equipment and processes used in manufacturing ceramic products. Mr. Greaves-Walker.

Courses for Advanced Undergraduates

Cer. E. 207. Bodies, Glazes, and Colors. 3-0-0

Required of seniors in Cer. E. Prerequisite: Chem. 103 and Cer. E. 209.

Lectures on the composition and production of ceramic bodies, glazes, and colors. Mr. Wills.

Cer. E. 208. Dryers and Drying. 3-0-0

Required of juniors in Cer. E. Prerequisite: Cer. E. 103.

The theory and practice of drying ceramic products.
Mr. Greaves-Walker.

Cer. E. 209. Ceramic Calculations. 0-0-3

Required of juniors in Cer. E. Prerequisite: Chem. 103, Cer. E. 103, 208, 213.

Mathematical solution of chemical and physical problems of the ceramic industries. Mr. Wills.

Cer. E. 210. Enamels and Enameling. 0-3-0

Required of seniors in Cer. E. Prerequisite: Chem. 103 and Cer. E. 209.

Theory and practice of the application of enamels to the metals.
Mr. Wills.

Cer. E. 212. Ceramic Products. 0-0-2

Required of juniors in Cer. E. Prerequisite: Cer. E. 104.

A study of the physical, chemical, and artistic properties necessary in ceramic products. Laboratory practice. Mr. Grimes.

Cer. E. 213. Kilns and Burning. 0-3-0

Required of juniors in Cer. E. Prerequisite: Cer. E. 208.

The theory and practice of firing ceramic products. Mr. Greaves-Walker.

Cer. E. 214. Pyrometry. 1-0-0

Required of seniors in Cer. E. Prerequisite: Cer. E. 213.

The theory and use of temperature measuring instruments in industry.

Mr. Greaves-Walker.

Courses for Graduates and Advanced Undergraduates

Cer. E. 300. Ceramic Laboratory. 3-3-3

Required of seniors in Cer. E. Prerequisite: Cer. E. 207, 208, 209, 212, and 213.

Practice in the operation of ceramic equipment and production of ceramic products. Messrs. Greaves-Walker and Grimes.

Cer. E. 301. Refractories. 0-0-3

Required of seniors in Cer. E. Prerequisite: Chem. 103, Cer. E. 103.

Refractory materials and manufacture of refractory products.

Use of refractory products in industrial furnaces.

Mr. Greaves-Walker.

Cer. E. 302. Glazes and Colors. 3-3-3

Prerequisite: Cer. E. 207.

Advanced laboratory practice in the production of glazes and colors.

Mr. Greaves-Walker.

Cer. E. 303. Ceramic Designing. 0-4-4

Required of seniors in Cer. E. Prerequisite: M. E. 107, Cer. E. 104, 208, 209, and 213.

Designing of ceramic equipment and clay-plant structures and arrangement of mechanical equipment; design of dryers and kilns.

Messrs. Greaves-Walker and Wills.

Courses for Graduates Only

Cer. E. 400. Designing of Ceramic Equipment and Plants. 3-3-3

Prerequisite: Cer. E. 211.

Advanced study and designing of ceramic machinery, dryers, kilns, and plant structures. Mr. Greaves-Walker.

Cer. E. 401. Advanced Refractories and Furnaces. 3-3-3

Prerequisite: Cer. E. 301.

Advanced study of refractory materials and products and their use.

Mr. Greaves-Walker.

Cer. E. 403. Industrial Adaptability of Clays. 3-3-3

Prerequisite: Cer. E. 215.

Laboratory investigations to determine the industrial uses to which various North Carolina clays, shales, and kaolins can be put. Mr. Greaves-Walker.

Cer. E. 403. Ceramic Research. 3-3-3

Prerequisite: Cer. E. 2155.

Research problems in Ceramics will be assigned to meet the desire of the student for specialization. Mr. Greaves-Walker.

CHEMICAL ENGINEERING

Courses for Undergraduates

Chem. E. 101. Chemical Engineering Practice. 1-1-1

Required of sophomores in Chem. E. Prerequisite or concurrent: Math. 202, M. E. 101, M. E. 104.

Introduction to Chemical Engineering practice; reactions in chemical processes, illustrative problems, control methods, and elementary principles of Chemical Engineering work. Mr. Randolph, Mr. Grove.

Courses for Advanced Undergraduates

Chem. E. 201. Industrial Chemistry. 3-3-3

Required of juniors in Chem. E., and of seniors in Textile Chemistry and Dyeing and Textile Design. Prerequisite: Chem. E. 101, or Tex. 212, or Soils 115.

Materials, methods, and processes employed in chemical manufacture; water, fuels, and power; conversion of raw materials into such necessary products as sugar, paper, gas, leather, paint, glass; problems and processes solved and presented in technical reports; waste materials and by-products; visits to industrial plants; industrial control methods. Mr. Randolph, Mr. Grove.

Chem. E. 202. Principles of Chemical Engineering. 3-3-3

Required of seniors in Chem. E. Prerequisite or concurrent: Chem. E. 201, Math. 203, C. E. 200.

Survey of field of Chemical Engineering; control in industrial manufacture; stoichiometry, flow of fluids and of heat; equipment for, and principles involved in, such processes as crushing and grinding, separation, exaporation, distillation, filtration; industrial calculations; design of chemical machinery; efficiency. Mr. Randolph, Mr. Grove.

Chem. E. 204. Water Treatment. 3-3-0

Required of seniors in Chem. E. Prerequisite: Chem. E. 201.

Supplies of water; filter plant machinery, equipment and practice; water purification, and softening; types of filters; requirements of waters for municipal and manufacturing purposes; water analysis; research on water purification. Mr. Randolph, Mr. Grove.

Chem. E. 205. Chemistry of Engineering Materials. 3-3-3 or 0-3-0

Required of seniors in Chem. E. Prerequisite: Chem. E. 201, M. E. 101 and 218, and Math. 203.

Technical study of engineering materials, suitable materials for manufacturing plants; machines, and special uses; corrosion and chemical action; paints and

protective coatings; metallurgy; strength, toughness, and elasticity of metals; chemical, metallographic, and microphotographic examination of metals and alloys, and other materials; fire assaying. Mr. Randolph, Mr. Grove.

Chem. E. 207. Chemical Principles in Unit Processes. 0-0-3 or 3-3-3

Prerequisite or concurrent: Chem. E. 202.

Fundamental principles in chemical manufacture and correlation of these principles in unit processes and operations. Mr. Randolph, Mr. Grove.

Chem. E. 208. Treatment of Water and Sewage. 3-0-0 or 0-0-3

Required of juniors in San. E. Prerequisite: M. E. 101 and C. E. 104.

Principles involved in the control of municipal water supplies and in sewage treatment; reactions involved; chemical nature of water and sewage treatment; methods for removal of the more objectionable materials in industrial waters. Mr. Randolph, Mr. Grove.

Courses for Graduates and Advanced Undergraduates

Chem. E. 301. Electrochemical Engineering. 3-3-3 or 0-0-3

Required of seniors in Chem. E. Prerequisite or concurrent: Chem. E. 201.

Theory and practice of electrochemical industries; principles of electrolysis and other electrochemical processes; electric furnace; electrothermal operations, electrometallurgy. Mr. Randolph, Mr. Grove.

Chem. E. 302. Vegetable Oils and Their Products. 0-0-3 or 3-0-0

Prerequisite: Chem. E. 201.

Commercial practice in the manufacture, refining, and conversion of vegetable oils and their by-products; analyses, tests, and methods of preparation for foods and feeds; drying, semi-drying, and essential oils. Mr. Grove.

Chem. E. 303. Gas Engineering. 0-0-3 or 3-3-3

Prerequisite: Chem. E. 201.

A gas engineering course; manufacture of industrial fues gases and their distribution; advances made in the industry; apparatus and equipment; general practice in gas plants; application and use of gas and the by-products of its manufacture; pipe lines, service connections, gas meters. Mr. Randolph.

Chem. E. 304. Sanitation Processes. 0-0-3

Prerequisite: Chem. E. 201.

Technical study of the methods of sanitation in industrial plants; equipment and practice in the disposal and treatment of waste materials and sewage; measure necessary in eliminating occupational disease hazards. Mr. Randolph.

Chem. E. 305. Industrial Application of Physical Chemistry. 3-3-3 or 0-3-3

Special phases of physical chemistry studied technically, with reference to the practical application of these principles in the industries and in the arts. Mr. Randolph.

Chem. E. 310. Cellulose and Allied Industries. 3-3-0 or 3-3-3

Required of seniors in Forestry. Prerequisite or concurrent: Chem. E. 201 or Forestry 206, 207.

Cellulose and its compounds; forest raw material for chemical industries; methods and processes; control conditions; machinery; equipment; water requirements; processes for manufacture of paper; rayon; tannin; tar; pitch; turpentine; creosote; wood alcohol; acetic acid; acetone; rubber, and callulose conversion products; distillation; and extract industries.

Mr. Randolph, Mr. Grove.

Courses for Graduates Only

Chem. E. 401. Chemical Technology. 3-3-3

Prerequisite: Chem. E. 202.

An advanced course in problems, processes, and methods of chemical manufacture and production; special problems of local manufacturing plants worked out under plant conditions; optimum production conditions; special study in applied inorganic, applied organic chemistry, and research in applied chemistry.

Mr. Randolph, Mr. Grove.

Chem. E. 402. Industrial Chemical Research. 3-3-3

Prerequisite: Chem. E. 201.

Chemical research on some industrial problem relating to North Carolina resources; practice in industrial plants, control analyses, estimate of losses, costs, data sheets, technical report. Mr. Grove.

Chem. E. 403. Chemical Engineering Research. 3-3-3

Prerequisite or concurrent: Chem. E. 202.

Some plant problem studied exhaustively by making investigations at the chemical plant, and by supplementary experiments and research in the laboratory; measurements, tabulation, graphs, and calculation of some actual plant problem. Mr. Grove.

CHEMISTRY

Courses for Undergraduates

Chem. 101, 103, or 105. General Inorganic Chemistry. 4-4-4

Recitations, and laboratory work; theories and laws, history, occurrence, preparation, properies, and uses of the more important elements and their compounds; formulæ, valence, equations and calculations.

Messrs. Caveness, Reid, Jones, Jordan, Ogg, Satterfield, Showalter, Wilson, and Williams.

Chem. 109. Chemical Calculations. 0-2-0 or 0-0-2

Prerequisite: Chem. 101, 103, 105.

Chemical problems; especially in analytical work. Lectures are given in principles, theories, laws, etc., upon which the problems are based; assigned problems for discussion. Mr. Caveness.

Chem. 111. Qualitative Analysis. 4-0-0

Required of sophomores in Chemical and Mining Engineering and those majoring in Chemistry and of sophomores in Textile Chemistry and Dyeing.

Prerequisite: Chem. 101, 103, 105.

Chemical analysis: identification and separation of more common ions and analysis of mixtures of salts and of commercial products. Mr. Wilson.

Chem. 112. Quantitative Analysis. 0-4-0

Required of sophomores in Chemistry, Chemical Engineering, and Textile Chemistry and Dyeing.

Prerequisite: Chem. 111.

Gravimetric and volumetric methods of analysis, including alkalimetry, acidimetry, oxidation, and reduction methods. Mr. Wilson.

Chem. 113. Quantitative Analysis. 0-0-4

Required of sophomores in Chemical Engineering and those majoring in Chemistry. Prerequisite: Chem. 111.

A continuation of Chem. 112. Substances of more difficult nature are analyzed, minerals, steel, alloys, limestone, Paris green, etc. Mr. Wilson,

Chem. 114. Quantitative Analysis. 0-0-4

Required of students in Textile Chemistry and Dyeing.

A continuation of Chem. 112. Substances of more difficult nature are analyzed, sulphites, sulphides, bleaching powder, Turkey Red Oil, soaps, etc.

Mr. Wilson.

Chem. 115. Quantitative Analysis. 0-0-4

Prerequisite: Chem. 111. Elective for agricultural students.

Course allows student to choose field of analysis, such as soil analysis, fertilizers, feedstuffs, insecticides, and fungicides. Mr. Wilson.

Chem. 131. Introductory Physical Chemistry. 3-3-3

Prerequisite: Chem. 101, 103, 105.

Required of Cer. E.; elective to others.

Fundamental chemical principles from a physiochemical viewpoint; special attention to silicate analysis. Mr. Jordan.

Chem. 141. Practical Organic and Biological Chemistry.
3-0-0, or 0-3-0, or 0-0-3

Required of sophomores, in Agriculture. Elective for others. Prerequisite: Chem. 101, 103, 105.

Hydrocarbons, alcohols, aldehydes, ketones, acids, ethers, esters, amino acids, and benzene derivatives; carbohydrates, fats, proteins, and related compounds; vitamins, enzymes, hormones, flavors, and miscellaneous. Mr. Satterfield.

Courses for Advanced Undergraduates

Chem. 221. Organic Chemistry. 4-4-4

Required of juniors in Chemical Engineering, Chemistry, and Textile Chemistry and Dyeing. Elective for others. Prerequisite: Chem. 101, 103, 105.

Aliphatic and aromatic compounds; practical applications; methods of preparation and purification of compounds, and their structures. Mr. Williams.

Chem. 231. Physical Chemistry. 4-4-4 and 4-4-0

Three terms required of seniors in Chemistry; the first two terms only required of Chemical Engineers. Prerequisite: Chem. 113.

Principles of Physical Chemistry; laws and theories, application to various branches of chemistry and to industrial processes. Mr. Jordan.

Chem. 240. Food Products and Adulterants. 3-0-0 or 0-3-0

Designed for students in all schools. Prerequisite: Chem. 101, 103, 105, and 141.

Food principles, cereals, starches, sugars, fats, milk and milk products, the packing house, food preservation, beverages, spices and condiments; food legislation. Mr. Satterfield.

Chem. 245. Agricultural Chemistry. 3-0-0

Prerequisite: Chem. 101, 103, 105, and 141.

Feeding the plant; insecticides and fungicides; transforming the plant into human food and animal food. Composition of plants; relation between composition and uses. Mr. Satterfield.

Courses for Graduates and Advanced Undergraduates

Chem. 301. Advanced Inorganic Chemistry and Inorganic Preparations. 0-2-2 or 0-3-3

Phases of Inorganic Chemistry; typical inorganic compounds involving chemical reactions, conditions, properties and principles. Given in alternate years. Mr. Jordan.

Chem. 303. Historical Chemistry. 2-0-0

Prerequisite: Chem. 101, 103, 105.

Development of Chemistry and of men instrumental in the progress of Chemistry. Mr. Williams.

Chem. 304. Theoretical Chemistry. 0-2-2

Prerequisite: Chem. 101, 103, 105.

Atoms and molecules, chemical reactions and conditions influencing them, electronic conception of valence, radio activity, etc. Mr. Williams.

Chem. 311. Advanced Qualitative Analysis. 4-0-0

Prerequisite: Chemistry 111 or its equivalent.

Theory and reactions in analysis of more complex compounds. Mr. Wilson.

Chem. 315. Advanced Quantitative Methods. 0-3-0 or 0-0-3

Prerequisite: Chem. 113 or its equivalent.

Methods and apparatus in advanced quantitative analysis; heat of combustion, colorimetry, hydrogen ion concentration, electric combusion of steel, etc.

Mr. Wilson.

Chem. 335. Chemistry of Colloids. 0-3-0

Prerequisite: Chem. 141 or 221.

Colloidal behavior, osmotic pressures, dialysis, sols and gels, membranes and membrane equilibria, proteins, and Donnan equilibrium. Mr. Jones.

Chem. 341. Chemistry of Vitamins. 0-3-0 or 0-0-3

Prerequisite: Chem. 141 or 221.

Application of vitamin hypothesis to human nutrition; history, nomenclature, properties, distribution, effects of deficiencies, and vitamin values.

Mr. Satterfield.

Chem. 342. Physiological Chemistry. 3-3-0

Prerequisite: Chem. 141 or 221.

Essential chemical facts pertaining to life processes; digestion, absorption, metabolism, secretions, and excretions; lectures and laboratory.

Mr. Satterfield.

Chem. 343. Blood Analysis. 0-3-0 or 0-0-3

Prerequisite: Chem. 112 and 221.

Hemoglobin, sugar, urea, uric acid, cholesterol, creatine, creatinine, non-protein nitrogen, amino acid nitrogen, calcium, etc.; Folin-Wu system is emphasized; lectures and laboratory. Mr. Satterfield.

Chem. 344. Food and Nutrition. 0-3-3

Prerequisite: Chem. 141 or 221.

Open to all students desiring a practical knowledge of the subject.

Carbohydrates, fats, proteins, amino acids, minerals, fiber, vitamins and enzymes; nutritive value of food materials; digestion, food idiosyncrasy; acidosis and alkalosis. Mr. Satterfield.

Chem. 381. Contemporary American Chemists. 2-0-0 or 0-2-0 or 0-0-2

Particularly intended for students specializing in Chemistry; open to others. Prerequisite: Chem. 221.

Current literature about outstanding men and their achievements in Chemistry.

Messrs. Jordan, Satterfield, Williams, Wilson.

Courses for Graduates Only

Chem. 401. Atomic Structure. 0-0-2

Lectures, discussions, and collateral readings in modern theories of the structure of atoms; chemical journals as basis of study. Mr. Jordan.

Chem. 417. Microchemical Analysis. 0-0-2

Prerequisite: Chem. 113.

Inorganic micro qualitative analysis; fibres, starches, etc. Mr. Wilson.

Chem. 421. Organic Chemistry, Advanced. 3-3-3

Prerequisite: Chem. 221.

Principles of Organic Chemistry, current literature; laboratory work and preparation in quantity. Mr. Williams.

Chem. 422. Organic Qualitative Analysis. 3-0-0

Prerequisite: Chem. 221.

Detection of elements and radicals, group characteristics. Mr. Williams.

Chem. 423. Organic Quantitative Analysis. 0-3-0

Prerequisite: Chem. 112, 221.

Analysis of organic compounds for carbon, hydrogen, nitrogen, the halogens, sulfur, etc. Mr. Williams.

Chem. 424. Organic Micro-Analysis. 0-0-3

Prerequisite: Chem. 221.

Tests for compounds, and impurities in quantities too small to be detected by ordinary methods. Mr. Williams.

Chem. 451. Chemical Research. 3-3-3

Prerequisite: 54 term credits in Chemistry. Open to all graduates.

Special problems that will furnish material for a thesis.

Mr. Jordan, Mr. Satterfield, Mr. Williams, Mr. Wilson.

Chem. 491. Seminar. 1-1-1

Required of graduate students specializing in chemistry.

Preparation and presentation of abstracts of current publications in the field of chemistry.

CIVIL ENGINEERING

Courses for Undergraduates

C. E. 100. Drawing. 1-1-1

Required of freshmen in Forestry.

Plain lettering, common symbols, platting of areas from compass survey notes furnished, filling in contours from notes furnished, tracing, calculation of areas—by planimeter. Finished maps. Mr. Fontaine.

C. E. 101. Mapping. 0-0-1

Required of sophomores in Forestry. Prerequisite: C. E. 208.

Complete finished map from calculation of survey notes acquired in C. E. 105, including recognized methods, symbols, legends, etc., used in forestry work.

Mr. Fontaine.

C. E. 102. Surveying I. 0-3-3

Required of sophomores in C. E., H. E., Const. E., San. E., and Min. E., and in Land. Arch. Prerequisite: Math. 103.

The use, care, and adjustments of surveying instruments; methods used in elementary land surveying, traverse lines, leveling, city surveying, topographical surveying, theory of stadia measurements. Field surveying one period, third term. Mr. Bramer, Mr. Whitener.

C. E. 104. Materials of Construction. 3-0-0

Required of sophomores in C. E., H. E., Constr. E., San. E., and Min. E.

The study of materials used in buildings and other engineering structures; their manufacture, quality, use and cost. Messrs. Tucker and Geile.

C. E. 105. Surveying F. 4-4-1

Required of sophomores in Forestry. Prerequisite: Math. 103.

The use, care and adjustment of surveying instruments. Methods used in elementary land surveying, topographical surveying, leveling, and theory of stadia measurements. Elementary field surveying during the first term. Second and third terms will be devoted to a survey of a selected section of wooded land, including exterior lines, level and topographical survey to be used in Mapping, C. E. 101. Mr. Fontaine.

C. E. 106. Detail Drawing. 1-1-1

Required of sophomores in C. E., H. E., San. E., and Constr. E. Prerequisite: Freshman Drawing, M. E. 102.

Lettering, mechanical drawing, structural details, and the elements of perspective. Mr. Geile.

C. E. 111. Plane Surveying. 2-0-0 or 0-2-0

Required of sophomores in A. E., and E. E., and of juniors in Cer. E. and M. E. Prerequisite: Math. 103.

The text used in this subject is designed primarily for non-civil students, covering the use of the chain, level, compass, and transit. Applicable problems in the class room and in the field. Mr. Mann, Mr. Whitener.

Courses for Advanced Undergraduates

C. E. 200. Mechanics. 3-3-3

Required of all juniors in Engineering. Prerequisite: Math. 203.

Statics, concurrent, non-concurrent, and parallel forces, friction, centroids, and moment of inertia; kinetics, rectilinear and curvilinear motion, rotation; work, power, and energy. Messrs. Mann, Wooten, Geile, and Shaw.

C. E. 201. Engineering Field Problems. 1-0-0

Required of seniors in C. E. and San. E. Prerequisite: C. E. 206, 207.

Special problems in Civil Engineering practice: triangulation, railroad and highway spirals; hydrographic surveying with sextant; plane table problems;

the use and rating of current meters; measurement of stream flow; drainage problems. Mr. Wooten.

C. E. 202. Sanitation and Mechanical Equipment of Buildings. 0-3-0

Required of seniors in Constr. E. Prerequisite: C. E. 200.

A study of water supply, soil, waste, and vent-pipe systems, principles and practice of heating and ventilating and a discussion of various other mechanical equipment of a building, such as elevators, dust-collecting systems, etc.

Mr. Geile, Mr. Vaughan.

C. E. 203. Strength of Materials and Reinforced Concrete. 3-3-3

Required of seniors in A.E., C.E., Constr. E., San. E., and H. E. Prerequisite: C. E. 200.

Working stresses of materials, stresses in beams, columns, and shafts. Shear, flexure, and deflection formulas. Derivation of formulas used in reinforced concrete designs, and use of diagrams and curves.

Mr. Mann, Mr. Tucker, Mr. Geile.

C. E. 204. Roofs and Bridges, and Structural Design. 3-3-3

Required of seniors in C. E., Constr. E., H. E., and San. E. First term required of A. E. Prerequisite: C. E. 200.

The determination of stresses in framed structures due to dead and live loads. Complete solution of roof-truss and bridge truss problems. The design of beams, columns, ties, and connections, with detail working drawings.

Mr. Tucker, Mr. Mann.

C. E. 205. Hydraulics. 3-0-0 or 0-3-0 or 0-0-3

Required of seniors in C. E., Constr. E., H. E., E. E. M. E., Min. E., and San. E. Prerequisite: Phys. 104, and Math. 201, 202.

Pressure, laws governing flow in pipes and conduits, flow through orifices and nozzles and over weirs; losses from friction and other sources. Methods of measuring the flow of streams; determination of water-power in streams; hydraulic motors and pumps. Mr. Riddick, Mr. Whitener.

C. E. 206. Surveying II. 3-3-0

Required of juniors in C. E., Constr. E., San. E., and H. E. Prerequisite: C. E. 102.

Surveying methods continued; triangulation, precise leveling, computations, theory of simple, compound, and reverse curves. Turn-outs, frogs,, switches and spirals. Mr. Tucker, Mr. Wooten, Mr. Whitener.

C. E. 207. Field Surveying II. 1-1-1

Required of juniors in C. E., H. E., Constr. E., San. E., Min. E., and Lands. Arch. Concurrent with C. E. 206

Surveying field practice; topographical survey, plane table practice. Complete field survey of a proposed highway to be used in C. E. 210.

Mr. Wooten, Mr. Bramer.

C. E. 208. Topographical Drawing. 0-1-0

Required of juniors in C. E., Constr. E., H. E., San. E., Min. E., Forestry, and Lands. Arch. Prerequisite: C. E. 207 or C. E. 105.

Conventional signs and lettering. Complete topographical map; engineering students using notes from C. E. 207, forestry and landscape students using furnished notes. Mr. Mann, Mr. Wooten.

C. E. 209. Graphic Statics. 1-0-0

Required of juniors in A. E., C. E., Constr. E., H. E., San. E., and Min. E. Prerequisite: C. E. 200.

Solutions of problems by graphical methods; use of the funicular polygon. Resultant pressure on retaining walls. Stresses in framed structures.

Mr. Mann,

C. E. 210. Engineering Office Practice. 0-0-1

Required of juniors in C. E., Constr. E., H. E., and San. E. Prerequisite: C. E. 208.

Preparation of plans, profiles, cross-sections for a railway or highway construction project; calculation of yardage, and balancing of quantities.

Mr. Wooten.

C. E. 211. Construction Engineering I. 0-3-4

Required of juniors in Constr. E. Prerequisite: C. E. 104, 106.

Preparation of working drawings, good practice in masonary and frame construction, estimating quantities. Mr. Geile.

C. E. 214. Mill and Mill Village Sanitation. 3-0-0

Mill and mill village water supply and sewage disposal, mosquito and fly control, sanitary milk supply, industrial hygiene. This course given for textile students. Mr. Whitener.

C. E. 215. Sanitary Engineering. 0-0-3

Required of juniors in San. E.

This course covers, in a general way, the field of Sanitary Engineering, including: water supply and sewage disposal; ventilation; mosquito and fly control; refuse disposal; public health laws and organization. Mr. Whitener.

Courses for Graduates and Advanced Undergraduates

C. E. 301. Applied Astronomy. 0-0-3

Required of seniors in C. E. and H. E. Prerequisite: C. E. 206, 207.

The application of astronomy in determining latitude, azimuth, longitude and time; astronomical observations with transit and sextant; reduction of observations. Mr. Tucker.

C. E. 302. Construction Engineering II. 3-3-3

Required of seniors in Constr. E. Prerequisite: C. E. 200, 211.

Study of construction of reinforced concrete and steel framed structures.

Estimation, cost analysis, organization, management of construction plants, field methods, labor-saving machinery, proposals and contracts. Mr. Geile.

C. E. 305. Waterworks. 0-3-0

Required of seniors in C. E. and San. E. Prerequisite: C. E. 205, Chem. E. 208.

Municipal waterworks; quantity; sources of supply; collection; purification; distribution. Laboratory analysis for determining quality and safety of water. Inspection of waterworks in various cities. Mr. Whitener.

C. E. 306. Railroad Engineering. 0-0-3

Required of seniors in C. E. Prerequisite: C. E. 200, 206.

Railroad permanent way. Construction and betterment surveys, economics of railroad location. Valuations, etc. Mr. Mann.

C. E. 308. Sewerage. 0-3-0

Required of seniors in C. E. and San. E. Prerequisites: C. E. 205, Chem. E. 208.

Separate and combined sewer systems; principles of design and construction; sewer appurtenances; disposal plants. Laboratory analysis of sewage and sludge. Inspection trips to sewage disposal plants. Mr. Whitener.

C. E. 309. Specifications. 0-0-1

Required of seniors in Constr. E. Prerequisite: C. E. 104, 211.

Preparation of specifications and legal documents for building operations. Mr. Geile.

C. E. 310. Water Purification. 0-0-3

Required of seniors in San. E. Prerequisite: C. E. 305.

Design and operation of water purification plants: sedimentation, coagulation, filtration, and sterilization of water. Recent treatment processes. Inspection trips to various plants. Mr. Whitener.

C. E. 311. Sewage Disposal. 0-0-3

Required of seniors in San. E. Prerequisite: C. E. 308.

Design and operation of sewage disposal plants; treatment processes and devices; efficiencies and costs of plants; public health, legal and economic problems involved. Inspection trips to disposal plants. Mr. Whitener.

Courses for Graduates Only

C. E. 401. Advanced Sewage Disposal. 3-3-0

Prerequisite: C. E. 311.

Study of sewage, sludge, and industrial wastes, efficiencies obtained by different types of disposal plants, treatment processes and their results, sludge conditioning, digestion and disposal. Mr. Whitener, Mr. Mann.

C. E. 402. Advanced Water Purification. 0-3-3

Prerequisite: C. E. 310.

Study of water purification processes, primary and secondary treatments control of tastes and odors, and treatment of colored waters.

Mr. Whitener, Mr. Mann.

C. E. 403. Sanitary Engineering Research. 3-3-3

Prerequisite: C. E. 215, 310, 311.

In the first term a study of recent developments and research in Sanitary Engineering is made from current literature. In the second term a research problem is selected and data on the problem is compiled from literature. In the third term individual research work is done. Mr. Whitener.

ECONOMICS

Courses for Undergraduates

Econ. 101. Introduction to Business. 5-0-0 or 0-5-0 or 0-0-5

Required of freshmen in Business Administration and in General Business.

Coördinated with American Economic History, Hist. 102 and Commercial Geography, Hist. 103 to provide foundation for the business courses.

Mr. Green.

Econ. 102. Introduction to Economics. 3-0-0 or 0-3-0 or 0-0-3

Required of students in the Schools of Engineering and Textiles. Not open to students in Business Administration.

It treats of the Business aspects and economic organization of society; production, distribution, and value of economic goods. Mr. Green.

Econ. 103. General Economics. 3-3-3

Required of sophomores in Business Administration, General Business, Agricultural Administration, Industrial Management, Electrical Engineering, Industrial Engineering.

A study of Economic institutions and general principles governing production and distribution of wealth under the existing economic organization.

Messrs. Bernstein, Forster, and Brown.

Econ. 112. Accounting for Engineers. 3-0-0 or 0-3-0 or 0-0-3

Required of students in the School of Engineering. Not open to students in Business Administration.

A survey of accounting and financial statements and records; devices, statements, and cost records; their construction, their use and interpretation.

Mr. Goehring.

Courses for Advanced Undergraduates

Econ. 201. Accounting I. 3-3-3

Required of all sophomores in Business Administration and Industrial Management and of juniors in Industrial Engineering.

Fundamental principles of theory and practice; interpretation of structure, form and use of business statements. Messrs. Shulenberger and Leager.

Econ. 210. Business Organization. 0-3-0

Required of seniors in Highway Engineering. Prerequisite: Econ. 102 or 103.

Forms of business enterprises, single enterprises, partnerships, joint-stock company, corporation, and principles of business management. Mr. Green.

Econ. 211. Business Law. 3-0-0 or 0-0-3

Required of seniors in Business Administration, Engineering, and Industrial Management.

Sources of law, fields of law, contracts, agency, sales, negotiable documents, and the law as it controls business transactions. Mr. Green.

Econ. 212. Statistical Method. 3-3-0

Required of seniors in Business Administration (two terms) and juniors in Agricultural Administration (one term). Prerequisite: Econ. 102 or 103.

Statistical methods, statistical types, collection and analysis of statistical data. Mr. Leager.

Econ. 214. Business Statistics. 0-0-3

Required of seniors in Business Administration. Prerequisite: Econ. 212.

Statistical methods and data; price levels, the business cycle, and business barometers in forecasting business conditions. Mr. Leager.

Econ. 215. Marketing Methods. 3-3-3

Required of juniors in Business Administration. Prerequisite: Econ. 102 or 103.

Marketing functions, agencies, systems, retailing, market analysis, markets. Mr. Moen.

Econ. 217. Advertising. 3-0-0

Required of seniors in Business Administration, Marketing Group. Prerequisite: Econ. 215.

Principles and practice of Advertising. Mr. Moen.

Econ. 218. Sales Management. 0-3-3

Required of seniors in Business Administration, Marketing Group.

Prerequisite: Econ. 215.

Administrative policy and organization; sales methods, planning and research; sales control. Mr. Moen.

Econ. 221. Money, Credit, and Banking. 3-3-0

Required of juniors in Business Administration. Prerequisite: Econ. 103.

Banking and credit institutions, price changes, monetary and banking developments; Federal Reserve System and money market. Mr. Moen.

Econ. 223. Business Finance. 0-0-3

Required of juniors in Business Administration. Prerequisite: Econ. 103.

Raising and spending of funds, and standards of control. Mr. Moen.

Econ. 229. Purchasing and Storeskeeping. 0-3-0

Elective. Prerequisite: Econ. 102 or 103.

Standards and specifications, requisitions, purchase orders, and their applications. Mr.....

Econ. 230. Industrial Management. 3-3-3

Required of juniors in Industrial Management, Finance, Banking and Accounting. Prerequisite: Econ. 103.

Internal working of industrial enterprises; control through budget-making, production and planning methods; industrial problems. Mr. Henninger.

Econ. 230-A. Industrial Management. 3-3-0

Required of seniors in Textile Engineering. Prerequisite: Econ. 102.

A more intensified course than Econ. 230. Industry in general with emphasis and application to textile industry. Mr. Henninger.

Econ. 231. Industrial and Personnel Management. 3-3-3

Required of juniors in Marketing and in General Business. Prerequisite: Econ. 103.

More general treatment of Economics 230 and Economics 340; administrative features. Personnel management, and production controls. Mr. Henninger.

Econ. 233. Office Management. 0-0-3

Elective. Prerequisite: Econ. 102 or 103.

Principles of management, office arrangements, filing methods, office personnel, business documents, reports, dictation and correspondence. Mr. Green.

Econ. 238. Industrial Psychology. 0-0-3

Required of seniors in Industrial Management and Industrial Engineering; elective for others.

Applications of psychological principles and techniques to industry and business. Mr. Garrison.

Econ. 239. Labor Problems. 3-0-0

Required of seniors in Industrial Management; elective for others. Prerequisite: Econ. 102 or 103.

History, organization, activities, and policies of organized labor. Recent developments. Mr. Henninger.

Econ. 240. Personnel Management. 0-0-3

Required of Textile seniors. Elective for Engineering students. Prerequisite: Econ. 102 and Soc. 102.

This course will follow as closely as possible Economics 340; subject-matter a proper background for successful Personnel Management.

Mr. Henninger.

Econ. 241. Traffic Management. 3-0-0

Required of seniors in Industrial Management and in Marketing. Prerequisite: Econ. 103.

Functions of traffic departments, shipping, transportation management, rates, etc. Mr. Henninger.

Econ. 242. Time Study. 0-0-3

Required of seniors in Industrial Management. Prerequisite: Econ. 102 or 103.

Analysis of shop operation in elements, and the determination of the time for each element; emphasis on factors affecting job specification, and wage rate setting. Mr. Henninger.

Econ. 256. Real Estate. 3-3-3

Prerequisite: Econ. 103.

Buying, selling, building, and managing real property; laws affecting property; real estate as a profession. Mr. Moen.

Econ. 270. Rural Law. 0-0-3

Elective. Prerequisite: Econ. 102 or 103.

Contracts, agency, sales, land transfers, mortgages, and other instruments, legal aspects of the business of farming. Mr. .....

Courses for Graduates and Advanced Undergraduates

Econ. 301. Accounting II. 3-3-3

Prerequisite: Econ. 201 and 6 hours in Economics. Required of juniors in Business Administration, Accounting and Finance Groups.

Problems of asset valuation such as depreciation, replacements, fire losses, amortization, etc. found in all types of business organizations.

Mr. Shulenberger.

Econ. 302. Modern Accounting Systems. 3-3-3

Required of seniors in Business Administration, Accounting Group. Prerequisite,: Econ. 201.

Principles of system building, structure and expansion; individual studies of representative business systems. Mr. Shulenberger.

Econ. 303. Principles of Cost Accounting. 3-3-3

Required of seniors in Business Administration, Accounting Group. Prerequisite: Econ. 201.

Cost finding, material costs, labor costs, burden and overhead costs; cost accounting system for manufacturing and extractive industries.

Mr. Leager.

Econ. 304. Auditing. 3-3-3

Elective. Prerequisite: Econ. 201 and Corequisite: Econ. 302.

Cases, records, working papers, verification, adjustment, composition, preparation, and rendition. Mr. Shulenberger.

Econ. 321. Principles of Money and Banking. 3-3-3

Analysis and research in the field of money and banking. Selected readings and reports. Mr. Moen.

Econ. 323. Business Finance II. 3-0-0

Required of seniors in Business Administration, Finance and Banking Group. Prerequisite: Econ. 223.

Financial Administration and polices as applied in Modern Business.

Econ. 324. Foreign Exchange and Trade. 0-0-3

Required of seniors in Business Administration, Finance and Marketing Groups. Prerequisite: Econ. 221.

Theory of foreign trade, commercial policies, and balance of international payments. Mr. Moen.

Econ. 325. Investments. 0-3-0

Required of seniors in Business Administration, Finance and Banking Groups. Prerequisite: Econ. 221.

Different types of investment securities and methods of judging them. Mr. Moen.

Econ. 326. Public Finance I. 0-3-0

Elective. Prerequisite: Econ. 103 and 6 additional credits in Economics.

Classes of income and expenditure; incidence of different classes of taxes. Mr. Moen.

Econ. 327. Public Finance II. 0-0-3

Elective. Prerequisite: Econ. 326.

A continuation course in Public Administration. Mr. Moen.

Econ. 330. Principles of Insurance. 0-3-0

Elective. Prerequisite: Econ. 103 and six additional credits in Economics for students in Business Administration; senior standing for students in other curricula.

Fields of insurance—life, fire, health, accident, credit, automobile, employees liability and workman's compensation. Mr. Leager.

Econ. 338. Conservation of Natural Resources. 0-2-0

Elective. Prerequisite: Econ. 103 and 6 additional credits in Economics for students in Business Administration; senior standing for students in other curricula.

The extent, uses, rates of consumption, and probable exhaustibility of our most important resources; utilization for welfare of the race. Mr. Brown.

Econ. 340. Personnel Management. 0-3-3

Required of seniors in Business Administration, Industrial Management. Prerequisite: Econ. 103 and 12 additional credits in Economics and Sociology.

Students desiring to take this course are advised to take one or more of the following: Econ. 238, 239, and Soc. 310.

Principles of effective management of men, including selection, progressive adjustment, and motivation of personnel in industry. Mr. Henninger.

Courses for Graduates Only

Econ. 401. Advanced Economic Theory. 3-3-0

Prerequisite: Eighteen (18) credits in Economics.

Recent and current economic theory; principal schools of economists; theory of prices under the system of free enterprise. Mr. Bernstein.

Econ. 402. History of Economic Doctrines. 0-0-3

Prerequisite: Econ. 401.

History of economic doctrines from the Mercantilists to the period of Ricardo. Mr. Bernstein.

Econ. 415. The Economics of Distribution. 3-3-3

Prerequisite: Econ. 103 and 215.

An advanced study of theory and practice of economic distribution. Mr. Moen.

Econ. 424. Advanced Economic Statistics. 3-3-3

Prerequisite: Econ. 212 or equivalent.

Application of statistical methods to the solution of more complex agricultural and economic problems. Mr. Leager.

Econ. 430. Industrial Management—Advanced. 0-3-0

Prerequisite: Econ. 103 and 230, or graduation in Engineering.

Industrial problems and scientific systems, applied to textile, metal, and furniture trades. Individual assignments and analysis of definite situations. Mr. Henninger.

Econ. 439. Labor problems—Advanced. 0-3-0

Prerequisite: Econ. 103, 239, and 9 credits in Sociology and 9 credits in Psychology.

Analysis of problems confronting organized and unorganized workers in all industries. Mr. Henninger.

Econ. 440. Personnel Management—Advanced. 0-0-3

Prerequisite: Econ. 103, 230, 340, and 439.

Methods of Personnel Management, differences between industries and between plants, and scientific training of Personnel Manager. Mr. Henninger.

EDUCATION

For description of summer school (s) courses see Summer School Bulletin.

Courses for Undergraduates

Ed. 101. Introduction to Psychology. 3 or 3 or 3

A study of the structure, function, and laws of human behavior with applications of psychology to everyday life. Mr. Moore.

***Ed. 103. Occupations.** 3-0-0 or 0-3-0 or 0-0-3

Elective.

A comprehensive view of the field of occupations, supplying facts which young men are entitled to have in deciding upon their life work. The work will consist of readings, reports, discussions, and lectures by the instructors of the course and representatives of various occupations. Mr. Boshart.

Ed. 106. Industrial Arts. 3-3-3

Required in Industrial Arts curriculum.

Lectures, laboratory work, and visitations. Emphasis on wood, metal, electrical, and printing shop work as meeting needs of general shop teaching. Required as major or minor in Industrial Arts Education. Mr. Boshart.

Courses for Advanced Undergraduates

Ed. 203. Educational Psychology. 3-3-0

Required of students in Education; elective for others.

The adolescent pupil, child development, problems of adjustment and educational guidance; problems of learning, motivation, interests, and the measurement of educational efficiency. Mr. Garrison.

Ed. 208. Visual Aids. 0-0-3

Required of students in Agricultural Education.

Prerequisite: junior standing.

Methods and technique of visual instruction; lettering; statistical illustrating; chart, graph, and poster-making; photography; lantern-slide making; projector operation, care and use. Designed for teachers and extension workers.
Mr. Armstrong.

Ed. 216. Metal Shop. 3-3-0

Required in Industrial Arts. Prerequisite: Ed. 106.

Use of hand and machine tools in problems for Secondary Schools.
Mr. Rowland.

Ed. 218. Electric Shop. 0-0-3

Required in Industrial Arts.

Electrical problems for Secondary Schools. Mr. Keever.

---

*This course is not counted as an education course in fulfilling graduation requirements.

Ed. 232. Project Design, A, B. 0-3-3

Required in Industrial Arts. Prerequisite: M. E. 102 and 103.

The designing of projects suitable for the general industrial arts laboratory of the junior and senior high school or specialized class work. Suitable materials, types of construction, and utility of projects. Mr. Boshart.

Ed. 233. Practices in Industrial Arts Teaching, A, B. 3-3-0

Prerequisite: Ed. 232.

Designed to meet the needs of teachers and principals of schools where shop work and drawing are taught. Much attention will be given to the working out of suitable problems and the types of equipment best adapted for the work. Mr. Boshart.

Ed. 269. Applied Psychology. 0-3-0

Application of psychological principles in special fields of business and industry, with special reference to advertising and selling. M.r Moore.

Courses for Graduates and Advanced Undergraduates

Ed. s303. Extra-Curricular Activities in the Secondary School. 3 credits

Ed. s305. Methods of Study. 3 credits

Ed. 306. Principles of Teaching. 3-0-0

Required of seniors in Agr. Ed. Prerequisite: Ed. 203.

Principles of teaching related to job of teaching vocational agriculture; motivation, directing study, teaching technique, lesson planning. Mr. Cook.

Ed. 307. Methods of Teaching Agriculture. 5-0-0

Required of students in Agricultural Education. Prerequisite: Ed. 203, 208, and at least 12 credits in Agriculture. With permission, advanced students may take Ed. 307, 203, and 306 concurrently.

Selection of teaching techniques; organization of subject-matter; equipment, texts, and supervised practice; selecting and cataloguing of books, reference material. Mr. Cook.

Ed. 308. Observation and Directed Teaching. 0-5-0

Required of seniors in Agr. Ed. Prerequisite: Ed. 203, 306, 307, and at least 12 credits in Agriculture.

Observation and teaching vocational agriculture under supervision, participation in the varied activities of the teacher of vocational agriculture. Mr. Cook.

Ed. 311. Evening Classes and Community Work. 0-5-0

Required of seniors in Agr. Ed. Prerequisite: Ed. 203, 306, 307, and at least 12 credits in Agriculture.

Community activities of teachers of vocational agriculture, organization and teaching evening and part-time classes. Mr. Cook.

Ed. 312. Materials and Methods in Teaching Agriculture. 0-5-0

Required of seniors in Agr. Ed. Prerequisite: Ed. 203, 306, 307, and 12 credits in Agriculture.

Use of illustrative and actual materials in teaching vocational agriculture; collection and preservation of speciments; chart making; practice in use of materials in directed teaching. Mr. Armstrong.

Ed. 320. Vocational Guidance. 0-3-0 or 0-0-3

Required of students in Industrial Arts. Prerequisite: Ed. 203, 205, 210, 327.

Treats of the problems of directing pupils in the study of occupations for the purpose of selecting and preparing for satisfactory life work.

Mr. Boshart.

Ed. 321. Vocational Education. 0-3-0

Required of students in Industrial Arts. Prerequisite: Ed. 203, 205, and 6 additional credits in Education.

Place and need for vocational education in organization of vocational work, including continuation schools, part-time and evening classes; need for vocational guidance, placement, and follow-up work. Mr. Boshart.

Ed. 322. Methods in Industrial Arts Teaching. 4-0-0

Required of seniors in Industrial Arts and those preparing to teach vocational classes in trades and industries.

The basic principles of teaching in the classrom or shop; selection and arrangement of material; lesson planning; and conduct of class work.

Mr. Boshart.

Ed. 326. Secondary Education in Agriculture. 0-0-3

Prerequisite: Ed. 203 and 6 other credits in Education.

School organization in the United States with special reference to agricultural education, curricula; elimination; movements in the guidance and character education. Mr. Cook.

Ed. 327. Standard Testing and Measuring. 0-3-3

Prerequisite: Twelve credits in Education or senior standing.

The winter term will give the teacher an insight into the more common achievement, diagnostic, and mentality tests, and their use and interpretation from the standpoint of the teacher, supervisor, and administrator.

The spring term will deal with the principles and practices of building up and using classroom tests and the principles underlying grading. Students will be given practice in building classroom tests in the field of their interest.

Mr. Mayer.

Ed. s329. Secondary Education. 3 credits

Ed. Ex. 330. Visual Instruction. 3-0-0 or 0-3-0 or 0-0-3

Ed. 331. Problems in Visual Instruction. 3-0-0 or 0-3-0 or 0-0-3

Prerequisite: Ed. 208 and 9 other credits in Education.

Psychology of sight perception; comparison of visual aids; study of research reports. Mr. Armstrong.

Ed. 332. Practices and Problems in Secondary Education. 0-0-3

Required of juniors in High School Teaching. Prerequisite: Ed. 203.

Factors in successful teaching; changing theories of education; practices in teaching; types of teaching; problems in secondary education.

Mr. Showalter.

Ed. 333. Field Work in Secondary Education. 2-0-0

Required of seniors in High School Teaching. Prerequisite: Ed. 203.

Systematic study of physical and instructional factors in selected high schools.

Mr. Showalter.

Ed. s334. Curriculum Studies in Secondary Education. 3 credits

Ed. s337. The Teaching of Geography. 3 credits

Ed. 338. Laboratory Practice in Science.

B. Botany	2-0-0 or 0-2-0
Z. Zoology	1 or 2-1 or 2-0
C. Chemistry	1 or 2—1 or 2—1 or 2
P. Physics	1 or 2—1 or 2—1 or 2

Five credits required of double majors in science teaching. Prerequisite: Ed. 332; approval of instructor.

Apprentice work in laboratory management and instruction.

Mr. Showalter and teachers of the respective sciences.

Ed. 339 to 343. Special Methods for High School Teachers.

Required of juniors or seniors in High School Teaching in the respective fields of specialization. Prerequisite: Ed. 332, approval of instructor.

For the respective teaching fields: determining influences in development; educational values and objectives; curriculum materials; teaching practices, including planning and testing.

Ed. 339. The Teaching of Science in the Secondary School. 5-0-0

Mr. Showalter.

Ed. 340. The Teaching of English in the Secondary School. 0-0-5

Mr. Clark.

Ed. 341. The Teaching of Mathematics in the Secondary School. 0-0-5

Mr. Mumford.

Ed. 342. The Teaching of History in the Secondary School. 5-0-0

Mr. Lefler.

Ed. 343. The Teaching of French in the Secondary School. 0-0-5

Mr. Hinkle.

Ed. 344. Observation and Directed Teaching. 0-5-0

Elective for students who desire a Class A certificate to teach in North Carolina high schools. Prerequisite: Ed. 332; Special Methods; subject matter required for certification; approval of instructor.

Observation; apprentice work in school activities; a minimum of 30 full class periods of actual teaching. Mr. Showalter and training teachers.

Ed. Ex. s352. Industrial Arts for the Elementary School. 3 credits

Ed. Ex. s354. Practical Arts Problems. 3 credits

Ed. s355. Art Studies in the Elementary School. 1½ or 3 credits

Ed. s360. Special Problems in Teaching Agriculture. 3 credits

Ed. s364. History of Education. 3 credits

Ed. 368. Measurements in Psychology. 3-0-0

Prerequisite: Six credits in Psychology supplemented by credits in related fields.

An introduction to the theory and practice of mental and aptitude testing. A study will be made of the various types of mental and performance tests now in use. A critical analysis is made of the methods of devising such tests and the application of the results to the various vocational activities. Mr. Garrison.

Ed. 377. Psychology of Secondary School Education. 0-0-3

Prerequisite: Ed. 203 or 371 and 6 credits in Education.

This course is intended for students interested in junior and senior high school work. The following topics are treated: The psychology of learning in the case of English, foreign languages, history, science, arithmetic, algebra, and geometry; developing motor skills; transfer of training; fatigue; methods of study; tests for special abilities; classification according to mental ability and physiological development; the psychological basis for the development of social ideals and helpful individual attitudes; abilities necessary for successful high school work. Mr. Garrison.

Courses for Graduates Only

Ed. 403. Advanced Educational Psychology, A, B, C. 3-3-3

Prerequisite: Eighteen credits in Education and Psychology.

The nature causes and measurements of individual differences in relation to problems of education; the principles of learning, motivation and conditions of educational improvement; the application of psychological principles to mental and educational measurements. Mr. Garrison.

Ed. 410. Administration and Supervision of Vocational Education. 3-3-0

Prerequisite: Ed. 203, 205, 210, 321, 327, and 410.

Administration and supervisory problems of vocational work. Considers the practices and policies of Federal and State officers with organization and admin-

istration of city and consolidated systems and individual school departments for vocational education. For graduate students majoring in Education.

Mr. Boshart.

Ed. 412. Occupational Counseling. 0-0-3

Prerequisite: Ed. 320, 327.

Counseling as applied in the junior and senior high schools, colleges, or placement offices, and the method of conducting interviews and conferences. Information covering occupational material will be organized, evaluated, and applied to specific case studies. Mr. Boshart.

Ed. 415. Psychological Methods in Vocational Guidance. 0-0-3

Elective.

Prerequisite: Ed. 101 or 203, 320, 327, and 9 other credits in Psychology and Education.

Contribution of psychology to vocational guidance problems; tests and measurements of intelligence, aptitude and skill, and an interpretation of results as related to guidance. Mr. Cook.

Ed. 416. Problems in Agricultural Teaching. 3-0-0 or 0-3-0 or 0-0-3

Prerequisite: Ed. 203, 307, and at least 12 other credits in Education and Agriculture. Experience in agricultural teaching will be accepted in lieu of Ed. 307.

Investigations, reports, and a critical evaluation of present practices with constructive remedies; course adapted to individual interests and needs.

Mr. Cook.

Ed. 417. Principles of Agriculture Education. 3-0-0 or 0-3-0 or 0-0-3

Prerequisite: Eighteen credits in Education and Agriculture. Permission to register.

Principles and practices in agricultural education in the light of educational research and of changing rural conditions. Mr. Cook.

Ed. 420. Agricultural Education Seminar. 1-1-1

Prerequisite: Eighteen credits in Education.

A critical review of current articles and books of interest to students of agricultural education. Mr. Cook, Mr. Armstrong.

Ed. 421. Research in Education. 3-3-3

The student will make a study of one or more research problems under the supervision of some member of the staff of the School of Education. The course will be selected on the recommendation of the member of the faculty with whom the student plans to carry on the study. Staff in Education.

ELECTRICAL ENGINEERING

Courses for Undergraduates

E. E. 101. Electrical Engineering Fundamentals. 1-3-3

Required of sophomores in E. E. Concurrent with Phys. 104.

Fundamental laws of electric, magnetic and dielectric circuits; problem drill.

Mr. Browne, Mr. Brown.

E. E. 102. Elements of Electrical Engineering I. 3-3-0 or 0-3-3

Required of juniors in Chem. E., C. E., H. E. and Constr. E., and of seniors in Cer. E. and Min. E., and in Industrial Management and Textile Manufacturing. Prerequisite: Math. 203, Phys. 104.

Principles and operation of electric apparatus.

Mr. Pearsall, Mr. Keever, Mr. Glenn.

E. E. 103. Elements of Electrical Engineering II. 3-3-3

Required of seniors in M. E. and of juniors in Industrial Engineering. Prerequisite: Math. 203, Phys. 104.

Principles, characteristics and operation of electric equipment.

Mr. Keever, Mr. Glenn.

Courses for Advanced Undergraduates

E. E. 201. Electrical Engineering. 4-4-4

Required of juniors in E. E. Prerequisite: E. E. 101.

Principles, performance and characteristics of direct current apparatus, electronics, theory of periodic currents, alternating current circuits and systems.

Mr. Fouraker, Mr. Brown, Mr. Keever.

E. E. 202. Electrical Engineering Laboratory. 2-2-2 or 4-4-4

Required of juniors in E. E. Concurrent with E. E. 201.

A laboratory course co-ordinated with E. E. 201. For 1933-34, E. E. 202 will carry 4 credits each term.

Mr. Pearsall, Mr. Keever, Mr. Brown, Mr. Glenn.

Courses for Graduates and Advanced Undergraduates

E. E. 300. Distribution Systems. 3-0-0

Required of seniors in E. E. Prerequisite: E. E. 201.

Low voltage distribution systems. Mr. Browne.

E. E. 301. Alternating Current Machinery. 0-4-4

Required of seniors in E. E. Prerequisite: E. E. 201.

Principles and characteristics of alternating current machinery.

Mr. Fouraker, Mr. Brown.

E. E. 302. Electrical Engineering Laboratory. 2-2-2

Required of seniors in E. E. Concurrent with E. E. 301.

A laboratory course co-ordinated with classroom work.

Mr. Fouraker, Mr. Pearsall, Mr. Keever, Mr. Brown.

E. E. 304. Electric Transmission, Electric Communications. (Optional with E. E. 305.) 4-3-3

Prerequisite: E. E. 301.

Theory and characteristics of electric circuits for high tension transmission of power; circuits for communication; radio and carrier current systems.

Mr. Fouraker, Mr. Brown.

E. E. 305. Electric Applications. (Optional with E. E. 304.) 4-3-3

Prerequisite: E. E. 201.

Selection of electrical equipment for industrial applications, control equipment; electric illumination; electric traction, electric power plants.

Mr. Browne, Mr. Fouraker, Mr. Brown.

Courses for Graduates Only

E. E. 401. Fundamental Principles in Electrical Engineering. 3-3-3

Prerequisite: E. E. 301, 302.

Theory of the more difficult problems in electrical engineering, emphasis being placed upon the fundamental principles. Mr. Browne, Mr. Fouraker.

E. E. 402. Electric Transmission—Advanced. 3-3-3

Prerequisite: E. E. 301, 303.

Calculation of constants, networks, mechanical principles, transmission lines, interference and transients in lumped circuits. Mr. Fouraker.

E. E. 403. Electrical Engineering Research. 3-3-3

Prerequisite: Graduation in electrical Engineering.

Original investigation in the field of Electrical Engineering.

Mr. Browne, Mr. Fouraker.

ENGLISH

Courses for Undergraduates

Eng. 100. Rhetoric and Composition. 3-3-3

Required in place of Eng. 101, of students deficient in the elementary principles of English.

Meets five (5) times a week for the three credits; applied grammar, punctuation, spelling, diction, and the mechanics. Mr. Clark and Staff.

Eng. 101. Rhetoric and Composition. 3-3-3

Required of all freshmen.

Illustrative readings; exercises in types of composition; long paper each term; collateral reading. Conferences.

Messrs. Paget, Clark, Hartley, Harrison, Wynn, Ladu, Fountain, and Marshall.

Eng. 102. Rhetoric and Composition. 0-3-3

The course repeats the works of English 101 for two terms beginning with the second term. Mr. Clark and Staff.

Eng. 120. Business English. 3-0-0 or 0-3-0 or 0-0-3

Required of sophomores in Business Administration, in Industrial Management, in General Business, and in Engineering. Prerequisite: Eng. 101.

Principles applicable to business writing; types of letters; form, style, and tone of effective correspondence. Conferences. Mr. Wilson.

Eng. 130. Technical Writing. 3-0-0 or 0-3-0 or 0-0-3

Prescribed for sophomores in Engineering. Elective for other students. Prerequisite: Eng. 101.

Principles of writing reports and other technical papers; illustrative readings; frequent short papers; a term paper. Conferences. Mr. Harrison.

Eng. 150. Principles of Journalism. 3-0-0

Required of students intending to take other courses in Journalism.

Prerequisite: Eng. 101 or equivalent.

Newspaper methods and organization; simple forms of news writing; collateral readings. Mr. Wynn.

Eng. 160. Public Speaking. 3-0-0 or 0-3-0 or 0-0-3

Prescribed for sophomores in Engineering who do not elect History and Principles of Journalism, or Survey of English or American Literature. Elective for other students. Prerequisite: Eng. 101 or equivalent; in third term, open to freshmen who have attained grades of B or better in first and second terms of Eng. 101.

Speech organization and effective delivery; extempore speeches; audience motivation and use of motivating process; acquisition of ease before audience. Messrs. Paget and Fountain.

Eng. 162. Speech Adjustment. 0-0-2

Elective. Prerequisite: Eng. 101.

Poise and pleasing communicative habits in all group contacts; habits of speech, posture, action, and language. Mr. Paget.

Courses for Advanced Undergraduates

Eng. 220. Survey of English Literature. 3-3-3

Elective. Prerequisite: Eng. 101.

Masterpieces in their literary and historical settings. Parallel readings for reports and discussions. Mr. Clark.

Eng. 221. Survey of American Literature. 3-3-0

Elective. Prerequisite: Eng. 101.

Masterpieces and outstanding types in their historical settings. Parallel readings for reports and discussions. Mr. Ladu.

Eng. 223. The English Novel. 3-0-0

Elective. Prerequisite: Eng. 101.

Its English origin, structural development, and historic and social settings; works of greater novelists and essential characteristics; the novel today; the short story. (Not given in 1933-34.) Mr. Ladu.

Eng. 226. Modern Drama. 0-3-0

Elective. Prerequisite: Eng. 101.

Modern plays, beginning with Ibsen; contemporary English and American productions. Mr. Ladu.

Eng. 227. The Development of the Drama. 0-0-3

Elective. Prerequisite: Eng. 101.

Origin, progress, and influence; plot, characterization, and interpretation of certain readings. Mr. Clark.

Eng. 233. Southern Writers. 3-0-0

Elective. Prerequisite: Eng. 101.

Important writers, with intensive study of Poe, W. G. Simms, Sidney Lanier, Joel Chandler Harris, George W. Cable, O. Henry, Ellen Glasgow, James Branch Cabell. (Not given in 1933-34.) Mr. Ladu.

Eng. 235. Victorian Poetry. 0-3-0

Elective. Prerequisite: Eng. 101.

Principal poets of the Victorian era; emphasis on Tennyson and Browning. Mr. Ladu.

Eng. 236. Victorian Prose. 0-0-3

Elective. Prerequisite: Eng. 101.

Readings in Landor, Macaulay, Carlyle, Ruskin, Newman, Arnold, Huxley, Pater, Stevenson and others.

[Not given in 1933-34.] Mr. Clark.

Eng. 238. The Bible as Literature. 0-0-3

Elective. Prerequisite: Eng. 101.

Selected books of the Old and New Testament as literary and historical documents. (King James Version.) Mr. Ladu.

Eng. 251. News Reporting. 0-3-3

Elective. Prerequisite: Eng. 150 or its equivalent.

Theory of the news story; gathering news; practice in reporting. Collateral readings. Mr. Wynn.

Eng. 253. News Editing and Copyreading. 0-0-3

Elective. Prerequisite: Eng. 150 or its equivalent.

Editing copy for errors of fact, diction, and style; headline writing; proof reading; and page makeup. Collateral readings. Mr. Wynn.

Eng. 254. Agricultural and Industrial News Writing. 3-0-0

Elective. Prerequisite: Eng. 101.

News-gathering and news-writing; feature articles; lectures; collateral readings. Mr. Wynn.

Eng. Ex. 261. Extempore Speaking. 3 credits

For extension only. Mr. Paget.

Eng. 269. Parliamentary Practice. 0-2-0

Elective. Not to be counted toward the fulfillment of any requirement in English. Prerequisite: Eng. 101 or equivalent.

Rules and customs of assemblies, including organization, motions; participation in and conduct of meetings; parliamentary strategy. Mr. Paget.

Courses for Graduates and Advanced Undergraduates

Eng. 319. The Essay. 0-3-0

Elective for students in all schools. Prerequisite: Eng. 101 and 3 additional credits in English.

The writing and appreciation of literary, non-technical essays; papers and one longer essay; conferences. Mr. Harrison.

Eng. 320. The Short Story. 0-0-3

Elective for students in all schools. Prerequisite: Eng. 101 and 3 additional credits in English.

Development, structure, types, and style of the present-day short story; writing narratives of fact and of fiction; conferences. Mr. Harrison.

Eng. 325. Advanced Technical Writing. 3-0-0

Elective. Prerequisite: Eng. 130 or equivalent.

Content, structure, and style of technical reports, of theses for advanced degrees, and of scientific papers; models in current periodicals and in separate monographs. Mr. Harrison.

Eng. 330. Shakespeare. 3-0-0

Elective. Prerequisite: Eng. 101 and three additional credits in English.

An analysis of principal plays. Reports on parallel readings. Mr. Clark.

Eng. 332. The Romantic Period. 0-3-0

Elective. Prerequisite: Eng. 101 and three additional credits in English.

Representative poems of Gray, Blake, Burns, Wordsworth, Coleridge, Scott, Southey, Byron, Shelley ,and Keats. Mr. Clark.

Eng. 333. Non-Dramatic Literature of English Renaissance. 3-0-0

Elective. Prerequisite: Eng. 101 and Eng. 220 or its equivalent.

Development of humanistic spirit in the poetry of the period between 1540 and 1625. Mr. Ladu.

Eng. 334. The Eighteenth Century. 3-0-0

Elective. Prerequisite: Eng. 101 and Eng. 220 or its equivalent.

English literature of the period from 1700 to 1770; content and critical importance emphasized. Mr. Ladu.

Eng. 335. Milton. 0-0-3

Elective. Prerequisite: Eng. 101 and Eng. 220 or its equivalent.

Major and minor poems, with limited treatment of prose. Mr. Clark.

Eng. 336. The Seventeenth Century. 0-3-0

Principal types of literature of the Restoration, preceded by few of major writers of early part of century. Mr. Ladu.

(Not given in 1933-34.)

Eng. 337. Contemporary American Literature. 0-0-3

Prerequisite: Eng. 101 and three additional credits in English.

Study of leading writers of present century, and an attempt to interpret works against social background of period. Mr. Ladu.

Eng. 352. Feature and Editorial Writing. 0-3-3

Prerequisite: Eng. 150 and special permission.

Analysis of feature story, feature articles, and editorials; constant practice in writing these forms; class discussions; collateral readings. Mr. Wynn.

Eng. 361. Argumentation and Debate. 0-3-0

Prerequisite: Eng. 160 or equivalent.

Analysis, brief-drawing and evidence, and methods of proof and refutation; fundamentals of conviction; humanness and forcefulness; extempore speeches, debates, and discussions. Mr. Paget.

Eng. 362. Persuasion. 3-0-0

Prerequisite: Eng. 160 or equivalent.

Psychological forces, methods of conciliation, securing and holding attention, and winning response; extempore speeches and discussions. Mr. Paget.

Eng. 363. Public Address. 0-0-3

Prerequisite: Eng. 160 or equivalent.

Public addresses for special occasions, including announcement, speech of introduction, committee-room speech, personal conferences, after-dinner speech, speech at professional convention, political speech, college oration, formal sales talk. Mr. Paget.

FIELD CROPS—AGRONOMY

F. C. 101. General Field Crops. 0-0-4

Required of freshmen in Agriculture.

A standard introductory course. Emphasis is given to the economic production of field crops as used in well balanced cropping systems.

Mr. Darst and Mr. Cotner.

F. C. 105. Cotton. 3-0-0

Required of sophomores in Textile. Alternative for sophomores in Agriculture.

Lectures and recitations on history, botany, and physiology of the cotton plant; comparative study of varieties; microscopic studies of the fiber and a study of the physical properties of the fiber as it affects milling quality.

Mr. Cotner.

Courses for Advanced Undergraduates

F. C. 201. Cereal Crops. 0-4-0

Prerequisite: F. C. 101. Required of juniors in Agronomy.

Advanced study of the various factors that should be considered in the economic production of corn and small grains. Mr. Darst.

F. C. 205. Legumes and Grasses. 0-0-4

Prerequisite: F. C. 101. Required of juniors in Agronomy.

Advanced study of legumes and grasses as to their adaptation and uses. Emphasis is placed on their economic use in crop and livestock farming.

Mr. Darst and Mr. Cotner.

F. C. s206. Seed Judging and Crop Identification. 3 credits

Prerequisite: F. C. 101.

Advanced study of quality in crop seeds. The identification and adaptation of crop varieties of economic importance. Mr. Darst.

F. C. 210. Cotton Production. 0-0-3

Prerequisite: F. C. 101.

This course, or Agronomy 215, required of juniors in General Agriculture.

Lectures and recitations on history, production, adaptation, type, and varieties; cultivation, harvesting, grading, and marketing. Laboratory consists of variety studies and the classing of cotton lint. Mr. Cotner.

F. C. 215. Tobacco Production. 0-3-0

Prerequisite: F. C. 101.

This course, or Agronomy 210, required of juniors in General Agriculture.

Lectures and recitations on history, production, adaptation, type, and varieties; cultivation, harvesting, grading, and marketing. Laboratory consists of variety studies and the grading of tobacco. Mr. Cotner.

F. C. 220. Cotton Classing I. 0-3-0

Elective for juniors or seniors.

A study of the universal standards of American upland cotton for grade and staple. Factors that determine grade and how to improve them. Practice will consist of classing three to five thousand samples of North Carolina cotton.

Mr. Cotner.

F. C. 225. Cotton Classing II. 0-3-0

Required of sophomores in Textile Manufacturing, Chemistry and Dyeing, and Designing.

A study of the universal standards of American upland cotton for grade and staple. Factors that determine grade and their relative value. Practice will consist of classing and stapling three to five thousand samples of cotton.

Mr. Cotner.

Courses for Graduates and Advanced Undergraduates

F. C. 302. Advanced Cotton Classing. 3-3-3

Prerequisite: F. C. 101 or 105, 225, or 220.

For men who expect to become specialists in cotton classing.

This course will prepare men to take the U. S. Civil Service examination for cotton classing. Mr. Cotner.

F. C. 303. Advanced Cotton Production. 3-3-3

Prerequisite: F. C. 210.

Advanced study of cotton production problems. Mr. Cotner.

F. C. 305. Crop Breeding. 3-3-3

Special problems in inheritance and methods of investigation. A student may select a problem in any phase of plant breeding. Mr. Cotner.

F. C. 330. Seed Judging. 3-0-0

Elective for juniors and seniors. Prerequisite: F. C. 101, Botany 101 and 102.

Advanced study of quality in crop seeds and the standards for seed certification. Arranging and judging of crop exhibits. Mr. Darst.

F. C. 332. Market Grading of Field Crops. 3-0-0

Elective for juniors and seniors. Prerequisite: F. C. 101, Botany 101, 102.

A study and application of the Federal Standard for Market grades as applied to field crops. Mr. Darst.

F. C. 334. Taxonomy of Field Crops. 3-0-0

Elective for juniors and seniors. Prerequisite: F. C. 101, Botany 101, 102.

A study of the origin, botanical classification, identification and adaptation of the commercially important crops and their varieties grown in America.

Mr. Darst.

F. C. 340. Experimental Methods. 0-3-0

Prerequisite: Twelve credits in a major subject. Elective for seniors.

A study of the development in agricultural experimental work and the experimental technique as developed to date by soil fertility, crop and crop breeding tests and demonstrations. Mr. Darst.

F. C. 345. Plant Breeding. 3-0-0

Elective for seniors. Prerequisite: Zoology 201.

Lectures, field and laboratory exercises, including methods and principles of plant breeding. Mr. Cotner.

F. C. 350. Senior Seminar. 1-1-1

Prerequisite: Twelve credit hours in Field Crops. Elective for seniors.

Scientific articles, progress reports in research and special problems of interest to agronomists will be assigned, and reviewed with discussion by students and members of the Agronomy Staff. Mr. Darst and Mr. Cotner.

F. C. 351. Crop Research. 3-3-3

Prerequisite: Twelve credit hours in Field Crops. Elective for seniors.

A study of research and demonstrations in crops. Emphasis will be placed on experimental tests in progress. Crops for special consideration will be assigned. Mr. Darst and Mr. Cotner.

Courses for Graduates Only

F. C. 401. Crop Research. 3-3-3

Prerequisite: Eighteen credit hours in Field Crops.

A study of special problems and methods of investigation. A student may select a problem in any phase of crop production. Mr. Darst, Mr. Cotner.

F. C. 404. Advanced Tobacco Production. 3-3-3

Prerequisite: F. C. 215 and ten additional credit hours in Field Crops.

Advanced study of tobacco production problems. Mr. Cotner.

F. C. 410. Seminar. 1-1-1

Prerequisite: Eighteen credit hours in Field Crops.

Scientific articles, progress reports in research and special problems of interest to Agronomists will be assigned, reviewed and discussed by students and members of the Agronomy Staff. Mr. Darst and Mr. Cotner.

F. C. 415. Plant Breeding Research. 3-3-3

Prerequisite: F. C. 345.

Inheritance problems of the plants. Available during any season appropriate to the study of the particular crop. Mr. Cotner.

FORESTRY

Courses for Undergraduates

For. 101. Elementary Forestry. 1-1-1

Required of freshmen in Forestry.

Study of the nature and development of forests of the world, with special study of the forests of the United States. A correlation of all sciences required in forestry. Field trips are included. Mr. Hofmann.

For. 102. Wood Technology. 0-3-0

Required of sophomores in Forestry. Prerequisite: Bot. 101, 102, 204.

Microscopic slides of the conifers and broad-leaved trees are studied in order to determine the occurrence, form, and structure of the wood elements. Identification by means of the hand lens is especially emphasized. Mr. Slocum.

For. 103. Timber Physics. 0-0-3

Required of sophomores in Forestry.

Prerequisite: For. 104.

Mechanical properties of wood. Strength tests. Methods of testing. Growth conditions that produce the best timber for specific purpose. Mr. Slocum.

For 104. Principles of Forestry. 3-0-0

Elective for junior and senior students not in Forestry.

Forest conditions in the United States and the relation of the forest problems to other fields of industry. World forests as related to local and national problems. Mr. Hofmann.

Courses for Advanced Undergraduates

For. 201. Mensuration. 3-3-3

Required of juniors in Forestry. Prerequisite: Math. 101, 103, Bot. 207.

The measurement of timber, both standing and felled; log rules, form factors, stem analysis and growth.

Methods of making volume, growth, and stand tables. Increment and yield studies.

Development of stand and yield tables from field data. Timber surveys. Mr. Slocum.

For. 204. Silviculture. 3-0-0

Required of juniors in Forestry. Prerequisite: Bot. 207.

Primary and secondary factors of tree growth and distribution. Forest regions, sites, stands and types. Mr. Hayes.

For. 205. Silviculture. 0-3-0

Required of juniors in Forestry. Prerequisite: For. 204.

Production, collection, extraction, storage, and planting of forest tree seeds. Mr. Hayes.

For. 206. Forest Utilization. 0-3-0

Required of seniors in Forestry. Prerequisite: For. 103.

The problems of more complete utilization of our forest resources. Utilization of present waste in commercial practice. Mr. Hayes.

For. 207. Forest Products. 0-0-3

Required of seniors in Forestry. Prerequisite: For. 206.

A study of the source and method of obtaining derived and manufactured products other than timber. Mr. Hayes.

For. 208. Timber Preservation. 0-3-0

Prerequisite: For. 105.

Lumber and timber preservations and their use. Methods of preservation. Relation of preservation to forestry and industry. Mr. Hayes.

Courses for Graduates and Advanced Undergraduates

For. 301. Silviculture. 3-0-0

Required of seniors in Forestry. Prerequisite: For. 205.

Methods of cutting to secure natural regeneration and their application. Intermediate cuttings and their effect on the stand. Protection. Mr. Hayes.

For. 302. Silviculture. 0-3-0

Required of seniors in Forestry. Prerequisite: For. 301.

The foundations and developments of silviculture on an ecological basis. The application of silvics and silviculture in the forests of the United States. Mr. Hofmann.

For. 303. Logging. 3-0-0

Required of seniors in Forestry. Prerequisite: C. E. 103, For. 205.

Methods and machinery used in the logging industry. Transportation of logs. Logging costs. Application of methods to specific conditions. All forest regions are covered, discussing the problems of each. Mr. Hayes.

For. 304. Lumbering. 0-3-0

Prerequisite: For. 303.

The manufacture and remanufacture, transportation and handling of lumber. Grades and grading of lumber. Mr. Hayes.

For. 305. Seasoning. 0-0-3

Prerequisite: For. 304.

Air-seasoning and kiln-drying of lumber. Kiln construction and operation. Kiln- and air-seasoning defects and their control. Mr. Hayes.

For. 306. Forest Management. 3-3-0

Required of seniors in Forestry. Prerequisite: For. 203, 205.

The principles of management of timber lands for economic returns. The normal forest is taken as the ideal. The application of regulation methods to the forest. A typical working circle as developed by the United States Forest Service is studied for each forest region. Mr. Hofmann.

For. 308. Forest Finance. 0-3-0

Prerequisite: For. 203-205.

A discussion of forests as investments, considering interest, carrying charges, financial maturity, and relation of intermediate to final and net incomes. Forest taxation, hazards in forest investments, and forest insurance. Mr. Hayes.

For. 309. Timber Appraisal. 0-0-3

Prerequisite: For. 301, 308.

Field and office methods of valuing timber lands, with special reference to stumpage appraisal; the determination of damages to timber and forest property by fire. Mr. Hayes.

For. 310. Seminar. 0-2-0

Required of seniors in Forestry.

A round-table discussion of forestry problems, trends of development in forestry matters and related sciences. Forestry Faculty.

For. 311. Methods of Research in Forestry. 0-3-0

Required of seniors in Forestry.

Methods of research used by the United States Forest Service, experiment stations, the Madison Laboratory, and State and private research organization. A problem must be completed for a thesis. Mr. Hofmann.

For. 312. Forest Management Problems. 0-0-3

Required of seniors in Forest Management.

The student must select some specific area on which all the phases of management may be worked out. Mr .Hofmann.

For. 313. Advanced Silviculture Problems. 3-3-3

Elective for seniors, time arranged.

Assigned problems or research experiments to be carried out to completion by the student. A written report of procedure, and results will be required. Mr. Hayes.

For. 314. Advanced Logging Problems. 3-3-3

Elective for seniors; time arranged.

Assigned or selected problems in logging in specified regions. A complete written report required for credit. Mr. Hayes.

For. 315. Advanced Manufacturing. 3-3-3

Elective for seniors; time arranged.

Assigned or selected problems applying to the manufacture or remanufacture of lumber. A complete written report required for credit. Mr. Hayes.

For. 316. Advanced Utilization Problems. 3-3-3

Elective for seniors; time arranged.

Assigned or selected problems dealing with some special phase of the utilization of forest resources. A complete written report required for credit. Mr. Hayes.

Courses for Graduates Only

For. 401. Forest Valuation. 3-3-3

The student must plan, organize, and conduct, under general supervision, an important research project in one of the fields of valuation. Mr. Hayes.

For. 402. Problems in Research. 3-3-3

Specific forestry problems that will furnish material for a thesis.
Mr. Hofmann.

GEOLOGY

Courses for Undergraduates

Geol. 101. Earth History. 3 or 3 or 3

Elective for freshmen and sophomores in Science and Business. Not to be taken after Geol. 120 or 125.

Introductory course in general geology: changes in the earth, and underlying physical and life processes. Mr. Stuckey.

Geol. 120. Physical Geology. 3-0-0

Elective. Dynamic and structural geology: forces acting in and on the earth, and materials of the earth's crust. Mr. Stuckey.

Geol. 125. Historical Geology. 0-3-0

Prerequisite: Geol. 101 or 120.

Sequence of events in development of the geology of the North American Continent. Mr. Stuckey.

Courses for Advanced Undergraduates

Geol. 201. Engineering Geology. 3-0-0 or 0-0-3

Required of sophomores in Ceramic and Mining Engineering, and of juniors in Civil and Highway Engineering.

Applications of principles of general geology to engineering problems.

Geol. 205. Physiography. 0-0-3

Evolution of the physical features of the earth and the agencies which influence their development. Mr. Stuckey.

Geol. 230. Mineralogy. 3-0-0 or 0-0-3

Crystallography, physical and chemical mineralogy. Repeated in the third term for Chemical Engineering students only. Mr. Stuckey.

Geol. 235. Advanced Mineralogy. 0-3-0

Prerequisite: Geol. 230.

A continuation of Geol. 230. Special attention to chemical and blowpipe properties of a larger group of important minerals. Mr. Stuckey.

Geol. 280. Geology and Mineral Resources of North Carolina. 3-0-0

Prerequisite: Geol. 120.

Physical geography, general geology, common rocks and minerals, and mine and quarry products of the State. Mr. Stuckey.

Geol. 281. Petrology. 3-0-0

Prerequisite: Geol. 120 or equivalent.

Materials of the earth's crust; rock-forming minerals; identification, origin, classification, and distribution of rocks; important rocks for building and ornamental purposes. Mr. Stuckey.

Geol. 291s. Geology of North Carolina. Summer Term. 9 credits

Prerequisite: Geol. 120.

Mines, quarries, mineral and clay deposits visited and studied; geological formations in different parts of the State; making of geological maps.
Mr. Stuckey.

Geol. 295. Petrography. 0-3-0

Prerequisite: Geol. 230.

Optical mineralogy and theory of light as applied to the polarizing microscope; practice in determining minerals in rock sections and in grains.
Mr. Stuckey.

Courses for Graduates and Advanced Undergraduates

Geol. 305. Economic Geology. Non-Metals. 0-3-0

Prerequisite: Geol. 120.

Mode of occurrence, association, origin, and uses of non-metallic minerals.
Mr. Stuckey.

Geol. 306. Economic Geology. Metals. 0-0-3

Prerequisite: Geol. 120.

Mode of occurrence, association, origin, and uses of leading metal-bearing minerals. Mr. Stuckey.

Geol. 320. Geological Problems. 3-3-3

Prerequisite: 9 credits in Geology.

Lectures, reading assignments, and reports. Special work in geology or petrography to meet the needs of the students. Mr. Stuckey.

HIGHWAY ENGINEERING

Courses for Advanced Undergraduates

H. E. 201. Highway Engineering I. 0-3-3

Required of juniors in C. E. and H. E. Prerequisite: C. E. 102.

History, economics and administration of highways; location, design, construction, and maintenance of highways; materials used in road building.
Mr. Tucker.

H. E. 204. Materials Testing Laboratory. 1-1-0 or 0-1-1

Required of seniors in C. E., H. E., Constr. E., San. E., and A. E.

The testing of materials used in construction. For the students in Civil and Highway Engineering, emphasis is placed on those materials used in road con-

struction; for the students in Architectural and Construction Engineering, emphasis is placed on those materials used in the building industry.

Mr. Tucker.

Courses for Graduates and Advanced Undergraduates

H. E. 301. Highway Engineering II. 3-3-3

Required of seniors in H. E. Prerequisite: H. E. 201.

Field and office practice; the economical design of highways, with particular reference to location, grading, and drainage; the high-type pavements, their design and construction; current highway practice and progress. Mr. Tucker.

H. E. 302. Highway Office Practice and Design. 1-0-0

Required of seniors in H. E. Prerequisite: H. E. 201.

The preparation of road plans and the calculation of yardage; the design of sections and small drainage structures. Mr. Tucker.

Courses for Graduates Only

H. E. 401. Highway Research. 3-3-3

Prerequisite: Eighteen term credits in H. E.

A study of the important research projects in the field of highway transport or that of highway engineering. The first term is usually given to the preparation of a bibliography of highway research projects; the second term is devoted to the preparation of papers on the results of specified research projects, while the third term is devoted to original research and investigation. Mr. Tucker.

HISTORY AND POLITICAL SCIENCE

Courses for Undergraduates

Hist. 101. American Economic History and Geography. 3-3-3

Required of students in Industrial Management, Botany, Chemistry, Physics, and Agricultural Economics.

Physiographic factors, discovery, colonization, colonial agriculture, industry, and commerce; economic background of the Revolution, government foundations, sectionalism, slavery and the Civil War; public lands, agriculture, public finance, tariff, banking, railroads, labor and labor organizations, rise of big business, the World War, and economic reconstruction. Messrs. Barnhardt and Goehring.

Hist. 101-A. American Economic History and Geography. 3-3-3

Elective for students in the School of Agriculture.

Similar to History 101, but with emphasis on the history of American Agriculture. Messrs. Barnhardt and Goehring.

Hist. 102. American Economic History. 5-0-0 or 0-5-0 or 0-0-5

Required of freshmen in Business Administration and General Business.

Economic development of agriculture, manufacturing, domestic and foreign commerce, transportation and currency; relation of economic events to political events. Messrs. Lefler and Barnhardt.

Hist. 103. Commercial Geography. 5-0-0 or 0-5-0 or 0-0-5

Required of freshmen in Business Administration and General Business.

Geographical conditions affecting industries, agriculture, and commerce of the world; location and availability of resources, transportation, trade routes, and international trade. Mr. Nelson.

Hist. 104. World History. 2-2-2

Required of all students who do not take Military Science.

Human progress from the earliest times to the present; culture of other races and the concept of development in human affairs.

Messrs. Barnhardt and Nelson.

Courses for Advanced Undergraduates

Hist. 201. Social and Economic History of Modern Europe. 3-3-3

Elective. Prerequisite: History 101.

Early European history, renaissance and reformation, industrial and commercial revolution, dynastic and colonial rivalry, the French Revolution, reaction following 1815, spread of democracy and nationalism, agriculture, industry, commerce, labor, tariff, expansion of Europe, background of the World War and post-war Europe. Mr. Barnhardt.

Hist. 209. Government. 3-3-3

Elective. Organization and activities of local, state and national government, party politics; economic, social, and legal factors of government.

Mr. Lefler.

Hist. 210. Political Theory. 3-0-0

Prerequisite: History 209.

Nature and origin of the State, social control, political theories, tools of political thinking. Mr. Lefler.

Courses for Graduates and Advanced Undergraduates

Hist. 300. Public Administration. 3-3-3

Prerequisite: Hist. 209 and Econ. 201.

Principles and practices of public administration; legal aspects, organization, financial and budgetary proposals. Comparative studies in State and local administration. Mr. Moen.

Hist. 301. United States History to 1860. 3-0-0

Prerequisite: Hist. 101.

Political, constitutional, economic, and social development; American Revolution, the beginnings of State and Federal Government, political parties, westward expansion, Jacksonian democracy, political and economic sectionalism, and causes of Civil War. Mr. Lefler.

Hist. 302. United States History Since 1860. 0-3-0

Political, constitutional, economic, and social life, with special emphasis upon reconstruction, territorial expansion, political movements, rise of big business and organized labor, and world politics. Mr. Lefler.

Hist. 303. History of North Carolina. 0-0-3

Prerequisite: History 101, 301, and 302.

A survey of the political, social, and economic history of North Carolina. Mr. Lefler.

Hist. 307. Southern Economic and Social History. 3-3-3

Elective. Prerequisite: History 101, 301, 302, and 303.

Research study of the economic and social history of North Carolina and other Southern States. Mr. Lefler.

Hist. 310. American Biography. 0-3-0

Elective. Prerequisite: History 101 and six hours additional History.

Representative men and women in American politics, law, religion, agriculture, industry, commerce, science, literature, art, etc. Mr. Lefler.

Hist. 318. Economic and Social History of Agriculture. 0-0-3

Required of seniors in Agricultural Administration; elective for others.

Prerequisite: Hist. 101 and 6 additional credits in History.

Influence of agriculture on national and world issues, economic and social status of the farmer throughout history. Mr. Lefler.

Hist. Ex. 320. History of Modern England. 3 credits

Survey of English political, social, economic, and diplomatic history from the beginning of the nineteenth century. Mr. Lefler.

Hist. Ex. 321. The Latin American Republics. 3 credits

Social, economic, and political development of Latin America since 1810. Mr. Nelson.

HORTICULTURE

Courses for Undergraduates

Hort. 101. General Horticulture. 0-0-3

Required of freshmen in Agriculture.

A course designed to give a general insight into the field of horticulture, including geographic centers of production and elements of culture of fruits, vegetables and floricultural crops. Mr. Gardner, Mr. Randall.

Hort. 102. Plant Propagation and Nursery Practice. 3-0-0

Elective for juniors.

Study of methods and practice in seedage, cuttage, separation and division,

budding and grafting. Cultural principles and practices in growing nursery stock. Mr. Randall.

Hort. 105. Small Fruit Culture. 3-0-0

A course in the culture and production of small fruits including strawberries, loganberries, dewberries, blackberries, blueberries, raspberries, currants and grapes. Mr. Gardner.

Courses for Advanced Undergraduates

Hort. 201. Fruit and Vegetable Judging. 2-0-0

Prerequisite: Hort. 101.

Practice in variety identification, in judging plates, collections, boxes, and commercial exhibits of fruits and vegetables. Mr. Randall.

Hort. 205. Pomology. 3 or 5-0-0

Prerequisite: Hort. 101.

A study of factors underlying fruit production; temperature and moisture relations, culture, fertilization, pruning, fruit setting, yield and storage. Mr. Gardner.

Hort. 206. Systematic Pomology. 2-0-0

Prerequisite: Hort. 101.

Fruit varieties: Their description, identification, nomenclature, and classification; their relationships and adaptations. Judging methods and standards. Mr. Gardner.

Hort. 209. Vegetable Production. 0-0-3 or 5

Prerequisite: Hort. 101.

Location, soil preparation, fertilization, irrigation, and general culture applicable to commercial vegetable production. Mr. Randall.

Hort. 210. Commercial Floriculture. 3-0-0

Prerequisite: Hort. 101, 102.

A study in detail of the commercial production of the principal florists' crops including actual planting and care of crops. Mr. Randall.

Hort. 211. Vegetable Forcing. 0-3-0

Prerequisite: Hort. 209.

Production and management of vegetable crops under glass. Practice in growing vegetables in forcing houses. Mr. Randall.

Hort. 212. Systematic Olericulture. 2-0-0

Prerequisite: Hort. 209.

Vegetable varieties; their description, identification, nomenclature, and classification; their relationships and adaptations. Mr. Randall.

Hort. 228. Home Floriculture. 0-0-3

Principles and methods of growing garden flowers and house plants, including varieties and their adaptability. Mr. Randall.

Courses for Graduates and Advanced Undergraduates

Hort. 301. Experimental Horticulture. 0-3-0

Prerequisite: Hort. 205, 209, 210.

A systematic study of the sources of knowledge and results of experiments in pomology, olericulture, and floriculture. Mr. Gardner, Mr. Randall.

Hort. 304. Horticulture—Problems. 2-2-2

Elective for seniors. Prerequisite: Twelve credit hours in Horticulture.

Systematic investigation of some phase of Horticulture. Each student chooses his own subjects of study and pursues it independently, under direction of the instructor. Mr. Gardner, Mr. Randall.

Courses for Graduates Only

Hort. 403. Methods of Horticultural Research. 3-3-3

Prerequisite: Eighteen credit hours in Horticulture.

A study of methods and procedure, outlining problems, assembling and analyzing data, and presenting results; critical review of experiment station work. Mr. Gardner.

Hort. 404. Seminar. 1-1-1

Required of graduate students only. Prerequisite: Eighteen credit hours in Horticulture.

Assignment of scientific articles of interest to horticulturists for review and discussion; student papers and research problems for discussion.

Mr. Gardner.

Hort. 405. Research. 3-5, 3-5, 3-5

Prerequisite: Eighteen credit hours in Horticulture.

Graduate students will be required to select problems for original research in pomology, olericulture, or floriculture. The work and presentation of results should be of such merit as to be worthy of publication. Summer work can be arranged. Mr. Gardner.

INDUSTRIAL ENGINEERING

Courses for Undergraduates

I. E. 101. Introduction to Industrial Engineering. 1-1-1

Required of sophomores in Industrial Engineering.

Outline of Industrial Engineering. Relations of engineers and industries.

Mr. Shaw.

Courses for Advanced Undergraduates

I. E. 213. Engineering Economy. 3-0-0 or 0-0-3

Required of juniors in Constr. E. and of seniors in E. E. Prerequisite: Econ. 102 or 103.

Investments, costs, and utility, with applications to engineering and industrial practices. Mr. Shaw.

I. E. 220. Principles of Industrial Engineering. 3-3-3

Required of seniors in I. E. Prerequisite: I. E. 213 and M. E. 202 and 204.

Power, machinery and processes. Development, status, and trend of American industries. Mr. Shaw.

I. E. 222. The Electrical Industry. 0-3-3

Required of seniors in E. E., winter term. Prerequisite: I. E. 213.

Operation, practices, management and performance of central electric stations and other electrical industries. Mr. Shaw.

I. E. 230. Public Utilities. 3-3-3

Elective. Prerequisite: Econ. 103 or I. E. 213.

The regulation of public utilities especially as to service, rates, value, and depreciation. Mr. Shaw.

Courses for Graduates and Advanced Undergraduates

I. E. 310. Engineering in Industry. 3-3-3

Prerequisite: Junior standing in an Engineering curriculum.

Application of engineering principles to the conduct of industrial enterprises. Mr. Shaw.

I. E. 312. Engineering Economy, Advanced. 0-3-3

Prerequisite: I. E. 213.

Comprehensive study of the application of economics to the practice of engineering. Mr. Shaw.

I. E. 320. Public Utilities, Advanced. 3-3-3

Prerequisite: I. E. 230.

Advanced study of the operation and regulation of public utilities. Public-Service Commission laws and procedure. Leading cases. Current trends. Mr. Shaw.

Courses for Graduates Only

I. E. 410. Industrial Engineering Research. 3-3-3

Prerequisite: graduation in Engineering.

Investigation of problems of importance in the field of Industrial Engineering. Mr. Shaw.

LANDSCAPE ARCHITECTURE

Courses for Undergraduates

L. A. 106. Arboriculture. 1-1-1

Required of freshmen in Landscape Architecture.

Culture of plant materials, their planting, transplanting, training, fertilization, and protection from pests, tree surgery and lawn making. Messrs. Pillsbury and Weaver.

Courses for Advanced Undergraduates

L. A. 203. Plant Materials. 0-2-0

Elective for juniors.

Ornamental plants, their characteristics of use in planting design for home, school and church grounds, and farmstead landscapes. Mr. Randall.

L. A. 204. Landscape Gardening. 0-0-3

Elective for seniors. Prerequisite: L. A. 203.

Landscape and planting design applied to the improvement of home, school, church, and community grounds, and the farmstead. Practice in making measured surveys, mapping, and designing improvements and planting.

Mr. Pillsbury.

L. A. 216. Plant Materials: Woody Plants. 2-2-2

Required of sophomores in Landscape Architecture. Prerequisite: Bot. 204.

Trees, shrubs and vines, their distribution, form and habits of growth, size, texture, color, and other characteristics determining use in planting design.

Mr Randall.

L. A. 217. Plant Materials: Annual and Herbaceous Plants. 0-0-2

Required of juniors in Landscape Architecture. Prerequisite: Bot. 204.

Herbaceous and annual plants, their height, habits of growth, texture, season, color and other characteristics determining use in planting design.

Mr. Randall.

L. A. 218. Theory of Landscape Design. 0-0-5

Required of sophomores in Landscape Architecture.

Introduction to the study of landscape design; its theoretical basis; the meaning of taste; historic styles; elements, and landscape composition; planting design; and analyses of typical problems in landscape design.

Mr. Pillsbury.

L. A. 219. History of Landscape Gardening. 3-3-0

Required of sophomores in Landscape Architecture.

History of the art of landscape architecture from the ages of antiquity to modern times. Sketching from illustrations of design in important periods.

Mr. Pillsbury.

L .A. 220. Landscape Design I. 4-4-4

Prerequisite: L. A. 218.

Problems in presentation, and in consecutive design of small properties, gardens and other special areas, and suburban estates. Mr. Pillsbury.

L. A. 221. Planting Design. 3-3-3

Prerequisite: L. A. 216, 217.

Problems in composition with plant materials, presentation, the preparation of planting plans, and cost data. Mr. Pillsbury.

L. A. 222. Landscape Design II. 4-4-4

Prerequisite: L. A. 220.

Problems in presentation, and in the design of small parks, and other public grounds, and institutional groups. Mr. Pillsbury.

L. A. 223. City Problems. 3-0-0

Origins and types of urban communities; modern city and town planning; legal, economic, social and aesthetic phases and their interrelationships; fundamental data required; methods of planning and financing; zoning, city and regional planning legislation. Mr. Pillsbury.

L. A. 224. Suburban Design. 0-4-0

Prerequisite: L. A. 220.

The subdivision of land as related to suburban development and urban growth. Mr. Pillsbury.

L. A. 225. Landscape Construction. 2-2-2

Prerequisite: C. E. 207, 208.

Problems in design of ground surface, walks, and drives; preparation of plans for grading and drainage; estimates of materials and costs; and methods of execution of landscape designs. Mr. Pillsbury.

L. A. 226. Office Practice. 0-0-1

Prerequisite: L. A. 220.

Arrangement of equipment, supplies, data illustrative and other material in landscape offices; methods of professional procedure; and professional ethics.

MATHEMATICS

Courses for Undergraduates

Math. 100. Mathematical Analysis. 3-3-3

Required of freshmen in the Textile School and elective for other Schools.

A general course in mathematics including algebra, trigonometry, and the elements of analytical geometry, with applications.

Messrs. Lee and Williams.

***Math. 101. Algebra.** 5-0-0

Required of freshmen in the School of Engineering and in the departments of Industrial Management, Industrial Arts, and Forestry.

This course includes quadratic equations, the progressions, the binomial theorem, permutations and combinations, logarithms, the general theory of equations, and the solution of higher equations.

Messrs. Fisher, Mock, Williams, Lee, Mumford, Fontaine, Jurney, and Thomas.

*This course will be repeated the following term.

*Math. 102. Trigonometry. 0-5-0

Required of Freshmen in the School of Engineering and in the Departments of Industrial Management, Industrial Arts, and Forestry.

The trigonometric functions, derivation of formulae, the solution of plane and spherical triangles, with practical applications.

Messrs. Fisher, Mock, Williams, Lee, Mumford, Fontaine, Jurney and Thomas.

*Math. 103. Analytical Geometry. 0-0-5

Required of Freshmen in the School of Engineering and in the Departments of Industrial Management, and Industrial Arts. Prerequisite: Math. 101, 102.

Loci of equations, the straight line, circle, parabola, ellipse, hyperbola, the general equation of the second degree, polar coordinates, transcendental curves and parametric equations.

Messrs. Fisher, Mock, Williams, Lee, Mumford, Fontaine, Jurney and Thomas.

Courses for Advanced Undergraduates

*Math. 201. Differential Calculus. 5-0-0

Required of sophomores in Engineering. Prerequisite: Math. 103.

An elementary course on the fundamental principles of the Calculus, including the formulæ for differentiation, with applications to Geometry and to problems in rates, maxima and minima, curve tracing, and curvature.

Messrs. Yates, Fisher, Mock, Williams, Lee, Mumford, and Jurney.

*Math. 202. Integral Calculus, I. 0-0-5

Required of all sophomores in Engineering. Prerequisite: Math. 201.

Methods of integration, and the study of the definite integral, with applications to problems in areas, volumes, surfaces and lengths of arcs.

Messrs. Yates, Fisher, Mock, Williams, Lee, Mumford, and Jurney.

*Math. 203. Integral Calculus II. 0-0-5

Required of sophomores in Engineering. Prerequisite: Math. 202.

A continuation of Integral Calculus I: the calculation of centroids, radii of gyration and moments of intertia; problems in work and liquid pressure; double and triple integrals, infinite series, hyperbolic functions, and the elements of ordinary differential equations.

Messrs. Yates, Fisher, Mock, Williams, Lee, Mumford, and Jurney.

Courses for Graduates and Advanced Undergraduates

Math. 301. Advanced Analytical Geometry. 3-0-0

Elective. Prerequisite: Math. 203.

The elements of higher plane curves, and the geometry of space.

Mr. Fisher.

*This course will be repeated the following term.

Math. 302. Advanced Calculus. 0-3-0

Elective. Prerequisite: Math. 203.

Designed for advanced students in engineering, and treats of partial differentiation, curve tracing, series, expansion of functions, envelopes, multiple integrals, with application to mechanics and engineering. Mr. Fisher.

Math. 303. Differential Equations. 0-0-3

Elective. Prerequisite: Math. 203.

A short course to include the solutions of equations which occur in scientific work and engineering practice. Mr. Fisher.

Math. 304. History of Mathematics. 0-0-3

The study of the historical development of mathematics, with emphasis on the evolution of the number system, arithmetic, algebra, geometry, and the calculus. Mr. Mock.

Courses for Graduates Only

****Math. 401. Theory of Equations.** 3-0-0

Prerequisite: Math. 203.

The usual topics in the theory of equations, the solution of higher equations, exponential and logarithmic equations, and determinants. Mr. Yates.

****Math. 402. Vector Analysis.** 0-3-3

Elective. Prerequisite: Math. 203.

A study of the different vector products, and the calculus of vectors, with applications to geometry and mechanics. Mr. Fisher.

MECHANICAL ENGINEERING

Courses for Undergraduates

M. E. 101. Engineering Drawing I. 2-2-2

Required of freshmen in Textiles, Landscape Architecture, and sophomores in Industrial Management.

Drawing-board work, covering lettering, projections, sections, revolution, pictorial drawings, intersection, development, working drawings, tracing, and blue-printing.

Messrs. Briggs, Turner, Morris, and Bridges.

M. E. 102. Engineering Drawing II. 3-3-0

Required of freshmen in Engineering and teachers of Industrial Arts.

Drawing-board work, covering lettering, projections, sections, revolution, pictorial drawings, intersection, development, working drawings, tracing, and blue-printing.

Messrs. Briggs, Turner, Morris, Bridges, and Kolb.

---

*This course will be repeated the following term.
**Math. 401 and 402, may be elected for credits by undergraduates who have satisfactorily completed thirty-six college credits in Mathematics.

M. E. 103. Descriptive Geometry. 0-0-3

Required of freshmen in Engineering and teachers of Industrial Arts.

Prerequisite: M. E. 102.

Representation of geometrical magnitudes by means of points, lines, planes and solids, and the solution of problems.

Messrs. Briggs, Turner, Morris, Bridges, and Kolb.

M. E. 104. Shopwork. 1-1-1

Required of freshmen in Engineering and in Textiles.

Use of bench tools, reading blue-prints, making cabinet joints, operation and care of woodworking machinery. Correct methods of staining, varnishing, filling, and gluing various kinds of wood. The forging of iron and steel. Instruction and practice in molding and core making. Cupola practice.

Messrs. Ferguson, Rowland, and Wheeler.

M. E. 107. Mechanical Drawing. 1-1-1

Required of sophomores in Ceramic, Mechanical, and juniors in Industrial Management. Prerequisite: M. E. 102; M. E. 103.

Drawing-board work, covering machine fastenings, pipe fittings, elementary cams, technical sketching, and working drawings; tracing and blue-printing.

Mr. Briggs.

M. E. 108. Metallurgy. 3-3-3

Required of sophomores in Mechanical Engineering. Prerequisite: Chem. 101.

Study of ferrous metals and their alloys; mining, smelting, refining, shaping and heat-treating. Includes allied laboratory work in Pattern-Making, Foundry, and Forge. Messrs. Kolb, Ferguson, Rowland, and Wheeler.

M. E. 110. Heat Engines I. 2-2-2

Elective in Textile Manufacturing. Prerequisite: Phys. 103 and Math. 103.

Nature and measurement of heat, work, and power. Study of fuels and combustion, steam and steam boilers, and boiler-room auxiliaries. Elementary thermodynamics of the steam cycle. Mr. Bridges.

M. E. 114. Mechanical Engineering Laboratory I. 1-1-0

Required of seniors in Ch. E. Concurrent with M. E. 201.

Calibration of thermometers and gauges, use of planimeters and indicators; coal and gas analyses; tests of lubricating oils. Steam engine tests.

Messrs. Satterfield, Bridges, and Morris.

M. E. 115. Heat Engines II. 3-0-0 or 0-0-3

Required of juniors in C. E., H. E., and in Industrial Management.

Nature and measurement of heat, work, and power. Study of fuels and combustion, steam and steam boilers, and boiler-room auxiliaries.

Messrs. Satterfield and Bridges.

Courses for Advanced Undergraduates

M. E. 201. Heat Engines III. 3-3-0

Required of juniors in Cer. E., and of seniors in Ch. E. Prerequisite: Phys. 104, Math. 203, M. E. 102.

Nature and measurement of heat, work, and power. Study of fuels and combustion, steam and steam boilers, and boiler-room auxiliaries. Elementary thermodynamics of the steam and gas engine cycles. Mr. Satterfield, Mr. Kolb.

M. E. 202. Mechanical Engineering Laboratory II. 1-1-1

Required of juniors in Cer. E., E. E., I. E., M. E., and Min. E. Concurrent with M. E. 204.

Calibration of thermometers and gauges, use of planimeters and indicators; coal and gas analyses; tests of lubricating oils. Steam engine tests.

Messrs. Bridges, Morris, and Satterfield.

M. E. 203. Kinematics. 3-3-3

Required of juniors in M. E. Prerequisite: M. E. 103 and M. E. 107.

Drawing-board work, covering the forms and motions of machines.

Mr. Foster, Mr. Fornes.

M. E. 204. Heat Engines IV. 3-3-3

Required of juniors in E. E., I. E., M. E., and Min. E. Prerequisite: Phys. 104, Math. 203 and M. E. 102, 103.

Nature and measurement of heat, work, and power. Study of fuels and combustion, steam and steam boilers, and boiler-room auxiliaries. Elementary thermodynamics of the steam and gas engine cycles.

Messrs. Vaughan and Satterfield.

M. E. 205. Furniture Designs and Rod-Making. 3-3-3

Required of juniors in M. E. (Furniture option.) Prerequisite: M. E. 107, 104.

Principles of elementary freehand design. Methods of dry-kilning, finishing, filling and staining, and rod-making. Mr. Wheeler.

M. E. 206. Machine Design. 2-2-2

Required of seniors in M. E. Prerequisite: M. E. 203.

Application of the principles of mechanics and of strength of materials in the design of machines. Mr. Foster.

M. E. 208. Strength of Materials. 3-0-0

Required of seniors in M. E., E. E., and Cer. E. Prerequisite: C. E. 200.

A study of stresses in materials produced by various forms of loading; design of structural units. Messrs. Riddick and Vaughan.

M. E. 211. Introduction to Aeronautics. 0-0-1

Required of juniors in M. E. (aeronautical option).

A study of the structural elements, nomenclature and principles of stability of the airplane. Mr. Foster.

M. E. 215. Furniture Design and Construction. 2-4-5

Required of seniors in M. E. (Furniture option.) Prerequisite: M. E. 205.

Theory and practice in construction and finishing. Factory processes and layout for quantity production. Mr. Wheeler.

M. E. 218. Machine Shop I. 1-1-0

Required of seniors in Chemical Engineering. Prerequisite: M. E. 104.

Instruction in the use of hand and machine tools. Mr. Park.

M. E. 219. Machine Shop II. 1-1-1

Required of juniors in M. E. and Textile Mfg. Prerequisite: M. E. 104.

Instruction in tool-making, gear-cutting, and the making of machine parts. Mr. Park.

Courses for Graduates and Advanced Undergraduates

M. E. 301. Mechanical Engineering Laboratory III. 1-1-1

Required of seniors in M. E. Prerequisite: M. E. 202, 204.

Testing of materials, efficiency and economy runs on gasoline, oil, and steam engines, steam turbine and fans. Boiler and steam pump tests. Messrs. Satterfield and Bridges.

M. E. 302. Gas Engines. 0-3-0

Required of seniors in M. E. Prerequisite: M. E. 202, 204.

Thermodynamics of the internal combustion engine. Fuels, combustion, ignition, efficiency, and economy. Mr. Kolb.

M. E. 303. Heating and Ventilating. 0-3-0

Required of seniors in M. E. and Industrial Management. Prerequisite: M. E. 202, 204.

Principles of heating and ventilation. Hot air, steam, and hot water heating systems; methods of ventilation. Mr. Vaughan.

M. E. 304. Refrigeration. 0-0-3

Required of seniors in M. E. Prerequisite: M. E. 202, 204.

Theory of refrigeration; types of ice-making and refrigerating machinery. Installation, management, and cost of operation. Mr. Vaughan.

M. E. 305. Power Plants. 3-3-3

Required of seniors in M. E. Prerequisite: M. E. 202, 204.

A critical study of fuels and combustion, heat balance, steam boilers, prime movers, and auxiliaries. Mr. Vaughan.

M. E. 306. Hydraulic Machinery. 0-0-3

Required of seniors in Electrical Engineering. Prerequisite: C. E. 205.

Design and tests of hydraulic motors and pumps, including study of their theoretical and actual efficiencies. Naval Hydro-Mechanics, Laboratory Experiment. Mr. Riddick.

M. E. 310. Airplane Engines. 3-3-3

Required of seniors taking Aeronautical Option in Mechanical Engineering. Prerequisite: M. E. 204.

Thermal and mechanical characteristics of high-speed internal combustion engines; operation, performance, and design. Mr. Kolb.

M. E. 311. Aeronautical Laboratory. 1-1-1

Required of seniors taking Aeronautical Option in Mechanical Engineering. Prerequisite: M. E. 202.

Experiments with the airplane engine and auxiliaries. Wind-tunnel tests on air-foils and models. Rigging of airplanes. Mr. Foster, Mr. Fornes.

M. E. 312. Airplane Design. 2-2-2

Required of seniors taking Aeronautical Option in Mechanical Engineering. Prerequisite: C. E. 200 and M. E. 203.

A study of the design of the wings and fuselage of an airplane.
Mr. Foster.

M. E. 313. Aerodynamics. 3-3-3

Required of seniors taking Aeronautical Option in Mechanical Engineering. Prerequisite: Physics 104, Math. 203, and C. E. 200.

A study of forces affecting the airplane in flight. Mr. Foster.

M. E. 320. Metallography. 3-3-3

Prerequisite: M. E. 108.

Structure of metals and alloys; its relation to physical properties. Influence of thermal and mechanical treatment. Microscopical analysis. Mr. Kolb.

Courses for Graduates Only

***M. E. 401. Power Plant Design.** 3-3-3

Prerequisite: M. E. 301, 305.

The design of a plant to fulfill conditions obtained by investigation and research; specifications for design and installation.
Messrs. Vaughan and Foster.

***M. E. 402. Design of Heating and Ventilating Systems.** 3-3-3

Prerequisite: M. E. 301, 305.

A study and design of a heating system for specific conditions; specifications for installation and performance tests of heating equipment. Mr. Vaughan.

M. E. 403. Advanced Aerodynamics. 3-3-3

Prerequisite: M. E. 313.

Wind tunnel research. First term: a study of tests performed. Second term: a series of experiments. Third term: the compilation and interpretation of the results. Mr. Foster.

*Only one of these courses to be offered during any college year.

M. E. 404. Aerodynamic Research. 3-3-3

Prerequisite: M. E. 313.

Research and thesis in connection with M. E. 403. Mr. Foster.

M. E. 405. Mechanical Engineering Research. 3-3-3

Prerequisite: M. E. 301, 305.

Research and thesis in connection with M. E. 401 and M. E. 402.
Messrs. Vaughan and Foster.

MILITARY SCIENCE AND TACTICS

Mil. 101. Military Science I. 2-2-2

This, the first-year basic course, is required of all physically fit freshmen.

The National Defense Act and the R. O. T. C., Military Courtesy and Discipline, Military Hygiene and First Aid, Drill and Command, Rifle Marksmanship, Scouting and Patrolling.

Mil. 102. Military Science II. 2-2-2

This, the second-year basic course, is required of all physically fit sophomores who have completed Military Science 101.

Drill and Command, Musketry, Automatic Rifle, Scouting and Patrolling, Combat Principles of the Rifle Squad.

Mil. 103. Military Science III. 3-3-3

This, the first-year advanced course, is elective for juniors. Prerequisite: Mil. 102.

Map Reading and Military Sketching, Drill and Command, Machine Gun, 37 MM. Gun, Three-inch Trench Mortar, and Combat Principles of the Rifle Section and Rifle Platoon.

Mil. 104. Military Science IV. 3-3-3

This, the second-year advanced course, is required of all seniors who have completed the first-year advanced course. Prerequisite: Mil. 103.

Military Law and Officers Reserve Corps Regulations, Military History and Policy, Administration of the Rifle Company, Field Engineering, Drill and Command, and Combat Principles of the Rifle Company, Machine Gun Company, and Howitzer Platoon.

Full credit will be given for work at other institutions maintaining a *Senior* unit of the Reserve Officers Training Corps as shown by the students' record, Form 131 A. G. O., kept by the Professor of Military Science and Tactics.

*Only one of these courses to be offered during any college year.

MINING ENGINEERING

Courses for Undergraduates

Min. E. 102. Mining I. 0-0-3

Required of juniors in Mining Engineering.

A study of the general principles of metallurgy. The course will include the metallurgy of the common base metals, copper, iron, lead, and zinc. Some time will be devoted to the methods of fire assaying. Mr. Bramer.

Courses for Advanced Undergraduates

Min. E. 201. Mining II. 3-3-3

Prerequisite: Min. 102. Required of seniors in Mining Engineering.

The first term will be devoted to a study of the principles of ore dressing, machinery and processes involved.

The remainder of the course will include an intensive study of methods of mining. Both open pit and underground methods will be treated. Mr. Bramer.

Min. E. 301. Mining III. 3-3-3

Prerequisite: Min. E. 201. Elective.

Mine examination, reports, valuation, and management. The course will also involve a study of mining periodicals with the purpose of acquainting the student with the present trend and advancement of mining engineering. Mr. Bramer.

MODERN LANGUAGES

Courses for Undergraduates

M. L. 101. Elementary French. 3-3-3

Elective. Reading and translations with elements of grammar; pronunciation, dictation, and oral practice. Mr. Ballenger.

M. L. 102. Elementary German. 3-3-3

Elective.

Reading and translations with elements of grammar; pronunciation, dictation, and oral practice. Mr. Hinkle.

M. L. 103. Elementary Spanish. 3-3-3

Elective. Reading and translations with elements of grammar; pronunciation, dictation, and oral practice. Mr. Ballenger.

M. L. 104. French Prose. 3-3-3

Elective. Prerequisite: M. L. 101, or equivalent.*

General survey of French literature and culture, with emphasis on Hugo, Dumas, Daudet, and others. Translations, parallel readings and reports.

Mr. Ballenger.

M. L. 105. German Prose. 3-3-0

Elective. Prerequisite: M. L. 102, or equivalent.*

General survey of German literature and culture, with emphasis on translations, parallel readings, and reports. Mr. Hinkle.

M. L. 106. Spanish Prose. 3-3-3

Elective. Prerequisite: M. L. 103, or equivalent.*

General survey of Spanish literature and culture, with emphasis on modern Spanish classics. Translations, parallel readings and reports. Mr. Ballenger.

M. L. 107. Elementary Scientific German. 0-0-3

Elective. Prerequisite: M. L. 105.

Translations with study of scientific construction, and the acquisition of a scientific vocabulary. Mr. Hinkle.

Courses for Advanced Undergraduates

M. L. 202. Commercial and Industrial French. 3-3-3

Elective. Prerequisite: M. L. 104.

Translation and interpretation of commercial and industrial literature; peculiar terminology of French technical writings. Alternates with M. L. 208. Mr. Ballenger.

M. L. 205. Commercial German. 3-3-3

Elective. Prerequisite: M. L. 105.

Study of business letters, Orders, Forwarding, Discounts, Credits, Payments, Complaints, Soliciting, Offers, etc. Given only on petition. Mr. Hinkle.

M. L. 206. Commercial and Industrial Spanish. 3-3-3

Elective. Prerequisite: M. L. 106.

Study of peculiar terminology of technical Spanish, Orders, Forwarding, Discounts, Credits, Payments, Complaints, Soliciting, Offers, and other similar subjects. Mr. Ballenger.

M. L. 208. Conversational French. 3-3-3

Elective. Prerequisite: M. L. 104.

Practice in French pronunciation, idiomatic construction and ordinary usages of the languages. Alternates with M. L. 202. Mr. Ballenger.

M. L. 209. Conversational Spanish. 0-0-3

Elective. Prerequisite: M. L. 106.

Practice in Spanish pronunciation, idiomatic construction and ordinary usages of the language. Mr. Hinkle.

*Two years of High School work will be considered the equivalent of M. L. 101, 102, or 103.

Courses for Graduates and Advanced Undergraduates

M. L. 301. Scientific French. 3-3-3

Elective. Prerequisite: M. L. 104.

Extensive reading in scientific literature; scientific terminology, and acquisition of a scientific vocabulary. Parallel readings, reports, and conferences.

Mr. Hinkle.

M. L. 304. Advanced Scientific German. 3-3-3

Elective. Prerequisite: M. L. 107.

Extensive reading in advanced scientific literature, designed primarily for students majoring in Science. Parallel readings, reports, and conferences.

Mr. Hinkle.

M. L. 310. French Civilization. 3-3-0

Elective. Prerequisite: M. L. 101 and 104, or equivalent.

Development of French civilization and culture; French manners and customs; use of narrative French. Parallel readings, reports, and conferences. Alternates with M. L. 313. Mr. Hinkle.

M. L. 311. Spanish Civilization. 3-3-0

Elective. Prerequisite: M. L. 103 and 106, or equivalent.

Development of Spanish civilization and culture; Spanish manners and customs; use of narrative Spanish. Parallel readings, reports, and conferences. Alternates with M. L. 315. Mr. Hinkle.

M. L. 312. German Civilization. 3-3-3

Elective. Prerequisite: M. L. 102, 105 and 107, or equivalent.

Development of German civilization and culture; German manners and customs; use of narrative German. Parallel readings, reports, and conferences. Alternates with M. L. 314. Mr. Hinkle.

M. L. 313. French Prose Masterpieces. 3-3-3

Elective. Prerequisite: M. L. 104.

Translation of French for purposes of investigation. Parallel readings, reports, and conferences. Alternates with M. L. 310. Mr. Hinkle.

M. L. 314. German Prose Masterpieces. 3-3-3

Elective. Prerequisite: M. L. 105.

Translation of German for purposes of investigation. Parallel readings, reports, and conferences. Alternates with M. L. 312.

M. L. 315. Spanish Prose Masterpieces. 3-3-3

Elective. Prerequisite: M. L. 106.

Translation for developing facility in Spanish. Parallel readings, reports, and conferences. Alternates with M. L. 311. Mr. Hinkle.

M. L. Ex. 316. The Development of Language. 3-3-3

The various phases of linguistic growth, with the object of providing a basis for intelligent language study. Problems as to the origin of language, linguistic change, grammatical categories, dialects, standard language, word order, inflection, isolation, aglutination, etymology and other linguistic processes.

Mr. Hinkle.

PHYSICAL EDUCATION

Courses for Undergraduates

P. E. 101. Required Physical Training. 1-1-1

Required of all freshmen except those excused upon the recommendation of the College Physician.

Individual development of student by all around calisthenic drill; standardized tests in athletic stunt events, gymnastic stunts and athletic efficiency tests.

Mr. Miller and Staff.

P. E. 102. Required Physical Training. 1-1-1

Prerequisite: P. E. 101. Required of all sophomores.

Popular sports for exercise and for a fair degree of skill in them.

Mr. Miller and Staff.

P. E. 110. History and Principles of Physical Education. 2-0-0

Elective in Education only. Prerequisite: Physical Training 102.

Evolution of Physical Education; relation of physical education to general education and to national ideals and life. Mr. Miller.

P. E. 111. Playground and Camp Administration. 0-3-0

Elective in Education only. Prerequisite: Physical Training 102.

For leaders and instructors in the administration of playgrounds and camps.

Mr. Miller.

P. E. 112. Theory Football Coaching. 2-0-0

Elective in Education only. Prerequisite: Physical Training 102.

Rules, equipment, schedule-making, individual position play, strategy, signal systems, and different offensive and defensive systems; practice sessions.

Mr. Smith.

P. E. 113. Theory Basketball Coaching. 0-2-0

Elective in Education only. Prerequisite: Physical Training 102.

Theory and practice of basketball with the same thoroughness as the course on Football Coaching. Mr. Sermon.

P. E. 114. Theory of Baseball Coaching. 0-0-2

Elective in Education only. Prerequisite: Physical Training 102.

Lectures and demonstration of the technique of baseball; offensive and defensive team play, individual position play, and all fundamentals of baseball.

Mr. Doak.

P. E. 115. Theory of Track and Field Coaching. 0-0-2

Elective in Education only. Prerequisite: Physical Training 102.

Selection of men and best training methods of the various events; organization of track practice, administration of running-off meets, and duties of officials.

Mr. Sermon.

P. E. 116. Athletic Training and Conditioning. 0-3-0

Elective in Education only. Prerequisite: Physical Training 102 and 112 or 113, or 114 or 115.

Methods and procedure of conditioning men for athletic activities.

Mr. Sermon.

P. E. 117. Rural Physical Training and Recreation. 0-0-3

Elective in Education only. Prerequisite: Physical Training 102.

Organized system of physical training and recreation; practice for conducting such a program. Mr. Miller.

PHYSICS

Courses for Undergraduates

Phys. 101. General Physics. 4-4-4

For business students, giving a general survey of the laws and devices of modern physical science. Messrs. Heck and Lancaster.

Phys. 103. Physics for Textile Students. 4-4-4

Required of freshmen in the Textile School. Prerequisite: Math. 100.

Industrial Physics, with emphasis on practical applications to textile industry.

Mr. Lancaster.

Phys. 104. Physics for Engineers. 5-5-5

Required of sophomores in Engineering. Prerequisite: Math. 103.

General physics, with emphasis on problems and engineering applications.

Messrs. Derieux, Dixon, and Meares.

Phys. 105. Physics for Agricultural Students. 0-5-0 or 0-0-5

Required of sophomores in Agriculture and freshmen in Forestry.

Elements of machines, physics of heat and weather, and applications of light and electricity on the farm. Messrs. Heck and Smith.

Phys. 107. Descriptive Astronomy. 0-0-3

Elective.

The sun and planets, the stars and modern research in astronomy; observations with telescope. Mr. Heck.

Courses for Advanced Undergraduates

Phys. 201. Advanced Physics. 5-5-5

Elective. Required of sophomores specializing in Physics. Prerequisite: Phys. 101, Math. 103.

Designed for teaching Physics in secondary schools or for those desiring specialization in Physics. Mr. Heck.

Phys. 209. Meterology. 3-0-0

Elective. Prerequisite: Phys. 101 or 104 or 105.

Causes of weather change, methods of forecasting, and peculiarities of the weather of North Carolina. Mr. Heck.

Courses for Graduates and Advanced Undergraduates

Phys. 301. Mechanics. 0-3-3 or 0-4-4

Elective. Prerequisite: Phys. 101, Math. 203.

The physics principles of mechanics. Mr. Derieux.

Phys. 302. Electricity and Magnetism. 3-3-0 or 4-4-0

Elective. Prerequisite: Phys. 101 or 104.

Fundamental principles of subject in a more specialized, but intermediate manner. Laboratory, if taken, increases the course to 4 credits. Mr. Dixon.

Phys. 303. Heat. 3-0-0 or 4-0-0

Elective. Prerequisite: Phys. 101 or 104.

Atomic heats, change of state, laws of thermodynamics, adiabatic transformations, and electrical instruments for heat measurement. Laboratory, if taken, increases the course to 4 credits. Mr. Dixon.

Phys. 304. Sound. 0-0-3 or 0-0-4

Elective. Prerequisite: Phys. 101 or 104.

Production, propagation, and reception of sound, with analysis of physical basis of music. Mr. Heck.

Phys. 305. Light. 0-3-3 or 0-4-4

Elective. Prerequisite: Phys. 101 or 104.

Introduction to principles of geometrical and physical optics. Mr. Derieux.

Phys. 306. Elements of Radio. 0-3-0

Elective. Prerequisite: Phys. 101, 104, or 105.

A general course in the theory and practice of radio. Mr. Dixon.

Phys. 307. History of Physics. 0-3-0

Elective. Prerequisite: Phys. 101.

Development of Physics from its beginnings to the present time. Mr. Heck.

Phys. 308. Modern Physics. 3-3-3

Elective. Prerequisite: Phys. 103 or 104, and Math. 103.

For students not specializing in Physics; modern Physics, Atomic Structures,

Spectra, Crystal Structure, X-rays, Isotopes, Radio-Activity, and Photo-Electricity. Mr. Dixon.

Phys. 309. Research. 3-3-3

Elective. Prerequisite: Phys. 103 or 104.

Undergraduate research given according to student's ability. Mr. Heck.

Physics 310. Physics Colloquium.

Current research by department and advanced students; meets weekly at night throughout the year. Mr. Heck.

Courses for Graduates Only

***Phys. 401. Theoretical Mechanics.** 3-3-3

Prerequisite: Phys. 201, Math. 203.

Gyroscopic motion, spiral orbits, compound pendulum, bifilar suspensions, coupled systems, damped and forced oscillations, elasticity, surface tension, osmosis, motion of fluids, viscosity, and wave motion. Mr. Derieux.

***Phys. 402. Geometrical Optics.** 3-0-0

Prerequisite: Phys. 201, Math. 203.

Photometry, intrinsic, luminosity, curved mirrors, refraction through a prism, refraction at curved surface, thin lens, lenses in system of thick lenses, the eye and spectacles, dispersion, aberrations, resolving power, achromatic lenses, and optical instruments. Mr. Derieux.

***Phys. 403. Physical Optics.** 0-3-3

Prerequisite: Phys. 201, Math. 203.

Velocity of light, composition of wave, velocity of wave transmission, wave theory of light, spectra, Doppler effect, absorption, anomalous dispersion, interference, interferometers, color photography, diffraction, and gratings, polarization, and saccharimetry. Mr. Derieux.

***Phys. 404. Kinetic Theory of Gases.** 3-0-0

Prerequisite: Phys. 201, Math. 203.

Laws of Maxwell, Dalton, Avagadro, first and second laws of thermodynamics, mean free path,, viscosity, diffusion, Van der Waals' equation, critical point; triple point; solution; vapor and osmotic pressure, boiling point, freezing point, heat of solution, dissociation. Mr. Derieux.

***Phys. 405. Isotopes.** 0-3-0

Prerequisite: Phys. 201, Math. 203.

Atomic theories, discovery of isotopes, positive rays, mass spectagraph methods of isotope analysis, electrical theory of matter, isotopes and atomic members, spectra of isotopes, and separation of isotopes. Mr. Derieux.

---

*Only two of the following alternate gamuts may be given each year; either 401 or 402 and 403, or 404, 405, and 406; and either 407 or 408 and 409.

***Phys. 406. Crystal Structure and X-rays.** 0-0-3

Prerequisite: Phys. 201, Math. 203.

Diffraction, X-ray spectrometer, X-rays, crystal structure, X-ray spectra, crystal structure, molecular solution, space lattices, oblique crystals, non-uniform spacing, arrangement of atoms, scattering of X-rays, X-ray reflection and absorption. Mr. Derieux.

***Phys. 407. Advanced Theory of Electricity and Magnetism.** 3-3-3

Prerequisite: Phys. 201, Math. 203.

Theorem of Gauss, energy in media, boundary conditions, condensers, electrometers, dielectric constants, migration of ions, thermodynamics of reversible cells, thermo-electricity, galvanometers, magnetic circuits, growth and decay of currents, oscillatory discharge, and alternating currents. Mr. Dixon.

Phys. 409. Discharge of Electricity in Gases. 0-3-0

Prerequisite: Phys. 201, Math. 203.

Production of ions in gases, motion of ions, velocity in an electric field, diffusion, recombination, determination of atomic charge, ionization by collision, discharge tubes, cathode rays, positive rays, and X-rays. Mr. Dixon.

Phys. 410. Experimental Optics. 0-2-2

Laboratory work with the photometer, spectrometer, gratings, Fresnel by-prism and mirrors, polarimeter, saccharimeter, and interferometer.

Mr. Derieux.

Phys. 411. Research. 3-3-3

Open to all graduates. Every graduate student sufficiently prepared is expected to undertake a research in some particular field of Physics. At least six hours a week must be devoted to such a research.

Messrs. Heck, Derieux, and Dixon.

Phys. 412. Atomic Theory. 3-0-0

Elective. Prerequisite: Phys. 101.

Bohr's model, spectral formula, elliptical orbits, fine structure of spectral lines, Stark effect, Zeeman effect, Roentgen rays, Moseley's law. periodic system, isotopes, radioactivity, atomic nuclei, ionization, spectra and atomic structure, fluorescence, atomic magnetism. Mr. Dixon.

POULTRY SCIENCE

Courses for Undergraduates

Poul. 101. General Poultry. 3-0-0

Required of freshmen in Agriculture.

Fundamental principles of poultry production. Mr. Williams.

---

*Only two of the following alternate gamuts may be given each year; either 401 or 402 and 403, or 404, 405, and 406; and either 407 or 408 and 409.

Poul. 103. Incubation and Brooding. 0-0-3

Elective. Prerequisite: Phys. 105, Poul. 101.

Principles of incubator and brooding operation, feeding, housing and rearing of baby chicks. Mr. Williams.

Courses for Advanced Undergraduates

Poul. 201. Selection and Mating of Poultry. 0-0-3

Elective for juniors in Agriculture. Prerequisite: Poul: 101.

Methods of recognition and selection for purposes of mating from both standard and utility standpoints. Study of progeny performance. Mr. Dearstyne.

Poul. 202. Poultry Production. 0-4-0

Alternative for sophomores, elective for others. Prerequisite: Poul. 101.

Production of soft roasters, capons, turkeys, and market eggs, sanitation and housing. Mr. Williams.

Poul. 208. Special Poultry Marketing. 0-3-0

Elective especially for seniors in Agriculture. Prerequisite: Poul. 101 and 202.

Commercial fattening, grading and marketing eggs. Refrigerating and storage, markets. Mr. Williams.

Courses for Graduates and Advanced Undergraduates

Poul. 301. Laboratory Diagnosis in Poultry Diseases and Poultry Serology. 0-3-3

Prerequisite: Poul. 101, 304, 305; Bot. 203; Zool. 102.

Diagnosis of poultry diseases by autopsy, artificial infection and study of disease cycles, prophylaxis; vaccine production and serological tests for poultry diseases. Mr. Greaves.

Poul. 302. Poultry Judging. 3-0-0

Required of juniors in Poultry Production, elective for others. Prerequisite: Poul. 101, 103, 201.

Class and practice work in standard and utility judging of fowl. Selection and preparation of birds for showing. Mr. Williams.

Poul. 303. Poultry Nutrition. 0-3-0

Required of juniors in Poultry Production, elective for juniors in Agriculture. Prerequisite: Chem. 101, Zool. 101 and 102, Joul. 101 and 202.

Feeds and feeding; physiology of digestion, absorption and elimination; mineral and vitamin requirements. Mr. Dearstyne.

Poul. 304. Poultry Anatomy. 3-3-0

Elective especially for juniors in Agriculture, elective for others. Prerequisite: Poul. 101, Zool. 102.

Study of normal structure of the fowl including osteology, arthrology, myology, splanchnology, angeology, neurology and aesthesiology. Mr. Gauger.

Poul. 305. Poultry Diseases. 3-3-0

Required of juniors in Poultry Science, elective for others. Prerequisite: Poul. 101, Zool. 102.

Sanitation, parasite infestations and control, contagious and non-contagious diseases of the fowl. Mr. Dearstyne.

Poul. 306. Commercial Poultry Plant Management. 0-0-3

Required of seniors in Poultry Science, elective for others. Prerequisite: Poul. 101, 201, 208.

Study of development and maintenance of a commercial poultry plant, custom hatching, and commercial incubation, cost of production. Mr. Williams.

Poul. 307. Poultry Problems. 1-1-1

Required of seniors in Poultry Science, elective for others. Prerequisite: Poul. 101, 201, 208.

Study of new developments in poultry research, discussion of practical problems. Mr. Dearstyne.

Poul. 309. Poultry Survey Studies. 3-3-3

Elective. Prerequisite: Poul. 101, 201, 208.

Field problems as to housing, feeding, production, marketing and disease. Mr. Dearstyne.

Courses for Graduates Only

Poul. 403. Poultry Physiology. 3-0-0

Prerequisite: Poul. 101, 301, 304, 305; Zool. 102.

Circulation, digestion, assimilation of the fowl; causes of mortality. Mr. Dearstyne.

Poul. 404. Poultry Histology and Pathology. 3 or 3 or 3
and
Poul. 405.

Prerequisite: Poul. 101, 304, 305; Zool. 102, 201, 207, 310.

Sectioning, staining and identifying normal tissue of the fowl, gross and microscopic pathology including section, staining of tissue, and identifying tissue derangement, causes of mortality. Mr. Gauger.

Poul. 406. Production Studies and Experiments. 3 or 3or 3

Prerequisite: Poul. 101, 102, 303, 305.

Problems in Poultry nutrition, breeding, and commercial poultry production and marketing. Mr. Dearstyne.

Poultry 407. Poultry Research. 3 or 3 or 3

Prerequisite: Eighteen term credits in Poultry.

Problems in Poultry Nutrition, Diseases, Marketing, and Breeding may be undertaken. Such problems shall be conducted on a definitely outlined basis

acceptable to the department and the results shall be summarized in the form of an acceptable basis. Poultry Staff.

Poul. 408. Seminar. 3 or 3 or 3

Prerequisite: Eighteen credit hours in Poultry. Mr. Dearstyne.

POULTRY-GAME MANAGEMENT

Courses for Graduates and Advanced Undergraduates

G. M. 311. Vermin Control. 0-0-3

Study of ecological relations, life history and control of animals destructive to game birds. Mr. Taylor.

G. M. 312. Game Birds and Animals. 3-3-0

A consideration of the principal North American game birds and game animals from the standpoint of methods of rearing, ecological relations and life histories. Mr. Taylor.

G. M. 314. Game Management. 3-3-3

Incubation, brooding, feeding and disease control of game birds. Installation and management of game farms and preserves. Mr. Taylor.

RELIGION

Courses for Undergraduates

Rel. 101. Introduction to Religion. 3-0-0

Elective. Typical forms and aspects of religion, religious phenomena, and basic sociological, psychological, and philosophical groundings of religion. Mr. Hicks.

Rel. 102. The Life of Jesus. 3-0-0

Elective.

The life of Jesus; Synoptic Gospel records with review of the social, economic, and political background of age that produced Jesus. Mr. Hicks.

Rel. 103. Social Ethics. 0-0-3

Elective.

Historical and psychological study of moral nature and moral progress; origin and development of the social conscience; and changing ethic in certain aspects of social life. Mr. Hicks.

Rel. 104. Social Teachings of Jesus. 0-3-0

Elective.

Social principles and ideals of Jesus in the Gospels: The Sermon on the Mount with teachings about God, trust, prayer, wealth, peace, and war. Mr. Hicks.

Courses for Advanced Undergraduates

Rel. 201. Comparative Religion. 0-3-0

Elective.

History, general characteristics, and social significance of the great ethnic religions of the world, characteristics of the living religions. Mr. Hicks.

Courses for Graduates and Advanced Undergraduates

Rel. 301. Problems in Religion. 0-0-3

Elective. Prerequisite: Rel. 101 and 3 additional term credits in Religion.

Pertinent problems of religion related to scientific and social developments: nature of religion, prayer, evil, immortality, etc. Individual investigation.

Mr. Hicks.

SOCIOLOGY

Courses for Undergraduates

Soc. 101. Human Relations. 2-2-2

Required of all students in the School of Science and Business, and of all students in the Schools of Agriculture, Engineering, and Textiles who do not take Military Science.

Fundamental human institutions, home, school, church, government, and industry; social structure and social problems of our time.

Messrs. Green, Winston, and Moore.

Soc. 102. Introductory Sociology. 3-0-0 or 0-3-0 or 0-0-3

Required of students in the Schools of Engineering and Textiles. Not open to students in the School of Science and Business.

Basic principles of social life and social organization, major social institutions, and problems arising from industrial organization. Mr. Hicks.

Soc. 103. General Sociology. 3-3-0

Required of sophomores in Business and Agricultural Administration and of juniors in Industrial Management. Elective for others.

Basic principles of sociology, general social organization and human behavior.

Messrs. Winston and Hicks.

Courses for Graduates and Advanced Undergraduates

Soc. 300. Criminology. 0-0-3

Prerequisite: Soc. 103.

Causes and conditions leading to crime, methods of handling criminals, and various factors in producing criminal behavior. Mr. Winston.

Soc. 301. Social Pathology. 0-0-3

Prerequisite: Soc. 103.

Outstanding pathological problems reacting from social life, social and individual adjustments. Messrs. Winston and Hicks.

Soc. Ex. 302. Sociology of City Life. 0-3-0

Elective. Prerequisite: Soc. 103 and 3 additional term credits in Sociology.

Problems arising from growth of modern town and city life; city planning in regard to social and industrial progress. Mr. Winston.

Soc. 305. Social Psychology. 3-0-0

Elective. Prerequisite: Ed. 101 and 3 additional term credits in sociology or psychology.

Social applications of psychology; social stimulation, response, and attitudes. Mr. Garrison.

Soc. Ex. 306. The Family Organization. 3-0-0

Prerequisite: Soc. 103 and 3 additional term credits in Sociology.

Family relationships, and development of personality, effects of present-day social changes, various efforts to stabilize the family. Mr. Winston.

Soc. 307. Race Relations. 3-0-0

Elective. Prerequisite: Soc. 103 and 3 additional term credits in Sociology.

Race problem in America and other countries; social, economic, educational status of racial groups; international relationships. Mr. Winston.

Soc. 308. Social Anthropology. 0-0-3

Prerequisite: Soc. 103 and three additional term credits in Sociology.

Analysis of present-day culture and its effect on behavior. Alternates with General Anthropology. Mr. Winston.

Soc. 310. Industrial Sociology. 0-0-3

Required of juniors in Industrial Management. Elective for others with permission of the instructor. Prerequisite: Soc. 103 and 3 additional term credits in Sociology.

Influence of industrial life, occupations as social and industrial factors, problems arising from our industrial era. Mr. Winston.

Soc. 312. General Anthropology. 0-3-0

Prerequisite: Soc. 103 and three additional term credits in Sociology.

Physical differences in racial groups; evolution of society. Alternates with Social Anthropology. Mr. Winston.

SOILS—AGRONOMY

Courses for Undergraduates

Soils 110. Soil Geology. 4-0-0

Physical geology as related to the origin of soils and mineral fertilizers. Mr. Cobb, Mr. Lutz.

Soils 115. Soil Management. 0-0-4

Prerequisite: Soils 110 and Chem. 101. Required of sophomores in Agriculture.

A study of the properties of soils and their relation to soil management. Mr. Cobb, Mr. Lutz.

Soils Ex. 120. Soils and Soil Fertility. 3-3

The characteristics of soils as related to their proper management from the point of view of soil conservation and the maintenance of soil fertility.

Mr. Cobb.

Courses for Advanced Undergraduates

Soils Ex. 215. Soils of North Carolina. 3

The origin, characteristics, distribution, native vegetation, agricultural adaptation and utilization of North Carolina soil types. Mr. Cobb.

Soils Ex. 220. Soil Geography. 3-3

The soils of the world and their relation to climate and physiography as the foundations on which the various agricultural industries are built.

Mr. Cobb.

Soils 265. Soil Fertility. 3-0-0

Prerequisite: Soils 115. For juniors and seniors in Agriculture.

A course dealing with the chemical and biological properties of soils as related to soil fertility. Mr. Lutz.

Soils 270. Soil Survey. 0-0-3

For juniors and seniors in Agriculture and Forestry. Prerequisite: Soils 110 or equivalent.

The making of detailed soil maps and the writing of soil survey reports.

Mr. Cobb.

Courses for Graduates and Advanced Undergraduates

Soils 310. Fertilizers. 0-3-0

For juniors and seniors in Agriculture. Prerequisite: Soils 265.

A study of the sources, characteristics and utilization of fertilizers; calculation of formulas. Mr. Cobb, Mr. Lutz.

Soils 315. The Soils of North Carolina. 0-3-0

For juniors and seniors in Agriculture and Forestry. Prerequisite: Soils 115 or 270.

The origin, characteristics, plant adaptation, and fertilizer needs of North Carolina soil types. Field trips. Mr. Cobb.

Soils 319. Fertilizer Experimentation. 0-0-3

Prerequisite: Soils 310.

A study of methods of determining the fertilizer needs of different crops on different soil types. Practice in mixing fertilizers and in putting out soil type fertilizer experiments. Mr. Lutz.

Soils 320. Pedology. 3-0-0

For juniors and seniors in Agriculture and Forestry. Prerequisite: Soils 115 or 270.

The genesis, morphology, and classification of the great soil crops of the world. Mr. Cobb.

Soils 321. Soil Technology. 3-3-3

Prerequisite: Soils 265.

A laboratory, field, and greenhouse course in the physical, chemical and biochemical properties of soils. Mr. Lutz.

Soils 322. Advanced Soils. 3-3-3

Prerequisite: Soils 265.

A course in advanced soil problems for seniors and graduate students. Mr. Cobb, Mr. Lutz.

Soils 350. Senior Seminar. 1-1-1

Elective for seniors in Agriculture. Prerequisite: Senior standing and fifteen credits in Soils.

Reports on special problems and scientific articles of interest to soil scientists. Mr. Cobb, Mr. Williams, Mr. Lutz.

Courses for Graduates Only

Soils 410. Seminar. 1-1-1

Prerequisite: Eighteen credits in Soils.

Reports and discussions of research problems in soil science. Mr. Williams, Mr. Cobb, Mr. Lutz.

Soils 430. Soil Research. 3-3-3

Prerequisite: Eighteen hours in Soils.

Research in specialized fields of soil science. Mr. Cobb, Mr. Lutz.

TEXTILES

Courses for Undergraduates

Tex. 101. Textile Principles. 2-2-2

Required of freshmen in all Textile curricula.

Principles of manufacture involved in the textile industry. Elementary calculations for yarns and fabrics; harness and reed calculations; loom production calculations; operation of machines. Mr. Nelson, Mr. Hart, Mr. Hilton.

Tex. 102. Yarn Manufacture I. 3-0-0 or 0-0-3
and
Tex. 103. Yarn Manufacture Laboratory I. 1-0-1

Required of sophomores in all Textile curricula.

Mixing of cotton, description and setting of openers, pickers, and cards. Production, speed and draft calculations. Operation and fixing of machines. Grinding and setting cards. Mr. Hilton.

Tex. 104. Knitting I. 3-0-0
and
Tex. 105. Knitting Laboratory I. 1-1-1

Required of sophomores in all Textile curricula.

Selection and preparation of knitting yarns, knitting mechanisms, plain and rib knitting machines, circula ribbers, and circular automatic machines. Operation of machines, practical experiments, hosiery analysis, topping, transferring and looping. Mr. Hardin.

Tex. 106. Fabric Structure and Analysis. 2-2-2

Required of sophomores in all Textile curricula.

Systems of numbering woolen, worsted, silk, linen, rayon, and cotton yarn. Plain, twill, and sateen weaves. Ornamentation of plain weaves; wave designs; pointed twills; diamond effects; plain and fancy basket weaves; warp and filling rib weaves.

Analyzing plain, twill, sateen, and other fabrics made from simple weaves, ascertaining the number of ends and picks per inch in sample. Fabric analysis calculations. Mr. Hardin.

Tex. 107. Power Weaving. 0-2-0
and
Tex. 108. Power Weaving Laboratory. 0-1-1

Required of sophomores in all Textile curricula.

Construction of auxiliary motions on plain looms. Cams and their construction. Drop-box loom construction. Methods of pattern chain building. Construction and value of pattern multipliers. Timing of drop-box motion, and other motions.

Operation and fixing of plain, automatic and drop-box looms. Pattern chain building for drop-box looms. Mr. Nelson, Mr. Hart.

Tex. 109. Fabric Testing. 0-0-1

Required of seniors in all Textile curricula.

Testing fabrics for strength. Effect of heat upon fabrics. Effect of regain upon tensile strength. Elasticity of fabrics. Micrometer and calculated tests for fabric thickness. Mr. Hart.

Tex. 110. Principles of Textile Manufacturing I. 3-0-0

A study of the processes and machines used in textile manufacture, planned as an overview course for those preparing to be teachers of industrial arts in junior and senior high schools or in vocational schools. Mr. Nelson.

Tex. 111. Principles of Textile Manufacturing II. 0-0-3

Prerequisite: Principles of Textile Manufacturing I, Tex. 110.

A study of the operation and care of textile machines, planned for those who are preparing to be teachers in vocational schools. Mr. Nelson.

Tex. 112. Dyeing I. 3-0-0
and
Tex. 113. Dyeing Laboratory I. 1-1-1

Required of juniors in Textile Manufacturing.

Physical and chemical properties of textile fibres. Chemicals used in preparing fibres for dyeing. Methods of applying substantive, sulphur, basic, developed, acid, acid chrome, mordant and vat dyes. Effect of changes in temperature and volume of the dye bath. Theory of dyeing mixed fabrics. Theory of mercerizing. Tests for the chemical constituents of the fibres. Dyeing experiments using all the different classes of dyes on the various fibres. Tests showing effect of varying such factors as bath, temperature and time. Tests for fastness to light, washing, cross-dyeing and so forth. Mercerizing experiment.

Mr. Grimshaw, Mr. Mott.

Tex. 114. Textile Microscopy. 1-1-0

Required of seniors in Textile Chemistry and Dyeing. Elective for others.

Instruction in the use of the microscope. Examination of fibres. Preparation of permanent slides.

Courses for Advanced Undergraduates

Tex. 201. Yarn Manufacture II. 0-3-0
and
Tex. 202. Yarn Manufacture Laboratory II. 1-1-1

Required of juniors in Textile Manufacturing. Prerequisite: Yarn Manufacture I, Tex. 102, 103.

Tex. 203. Yarn Manufacture III. 0-3-3
and
Tex. 204. Yarn Manufacture Laboratory III. 2-2-2

Required of juniors in Yarn Manufacturing. Prerequisite: Yarn Manufacture I, Tex. 102.

Construction of draw frames; sliver lapper; ribbon lapper, comber; mechanical and electrical stop motions; description and setting of the different parts; weighting of rolls; types of roll covering; care of machines; fly frame builder and differential motions.

Operation and fixing of draw frames; sliver lappers; ribbon lapper; comber and fly frames. Changing of hank roving and the setting of rolls and speeder motions.

Mr. Hilton.

Tex. 205. Fabric Design and Analysis I. 3-3-0

Required of juniors in Textile Manufacturing.

and

Tex. 206. Fabric Design and Analysis II. 3-3-3

Required of juniors in Weaving and Designing.

Prerequisite: Fabric Structure and Analysis, Tex. 106.

Construction of fancy weaves, such as broken twills, curved twills, entwining twills; granite weaves. Imitation leno; honeycomb weaves; fabrics backed with

warp or filling; fabrics ornamented with extra warp or filling; combining weaves together to produce new patterns.

Analyzing samples of fancy fabrics for design, drawing in draft, reed, and chain plan. Calculating particulars to reproduce fabric from data obtained from sample.

Tex. 207. Dobby Weaving. 0-0-3
and
Tex. 208. Dobby Weaving Laboratory I. 1-1-1

Required of juniors in Textile Manufacturing and Yarn Manufacturing. Elective for others.

Tex. 209. Dobby Weaving Laboratory II. 2-2-2

Required of juniors in Weaving and Designing. Prerequisite: Power Weaving, Tex. 107, 108.

Methods of drawing in and starting up cotton and rayon warps. Setting of harness shafts. Selection of springs or spring jacks. Construction and methods of fixing single and double index dobbies. Methods of pattern-chain building.

Preparation of warps for weaving cotton and rayon fabrics on dobby looms; starting up warps in looms; fixing single and double index dobbies; pattern-chain building; operation of dobby looms. Mr. Hart.

Tex. 210. Cotton and Rayon Dyeing. 0-3-0
and
Tex. 211. Cotton and Rayon Dyeing Laboratory I. 1-1-1

Required of seniors in Textile Manufacturing. Elective for others. Prerequisite: Dyeing I, Tex. 112, 113.

Lectures on color mixing, money value of dyes. Testing of dyes, water, starch, and materials used in sizing. Lubricating oils, oils and oil compounds. Processes and machinery used in dyeing and finishing. Textile printing. Apparatus used in research laboratory.

Color matching. Testing dyes for strength and money value. Physical and chemical examination and application of starches, sizing materials and finishing compounds. Examination of textile oils, soap and all the different rayons. Analysis of mixed fabrics. Mr. Grimshaw.

Tex. 212. Dyeing II. 3-3-0
and
Tex. 213. Dyeing Laboratory II. 2-2-2

Required of juniors in Textile Chemistry and Dyeing.

Physical and chemical properties of textile fibres. Lectures on wool, silk, rayon and cotton; hydrometers and chemicals used in dyeing and finishing. Application of dyestuffs to different fibres. Effect of changing bath, temperature or time factor. Money value and strength tests of dyes. Theory of dyeing mixed fabrics. Mercerizing.

Microscopic examination of textile fibres. Dyeing experiments using different classes of dyes on textile fibres. Tests showing the effects of varying such factors

as bath, temperature and time. Fastness to light, washing and cross dyeing. Money value and strength of various dyes. Mercerizing.

Mr. Grimshaw, Mr. Mott.

Tex. 214. Textile Printing. 3-0-0
and
Tex. 215. Textile Printing Laboratory. 1-1-1

Prerequisite: Dyeing II, Tex. 212, 213.

The history of printing and the development of machinery used. Calico printing with the mordant, basic, and vat colors, analine black, indigo, and insoluble azo colors. Resist and discharge styles.

Paste mixing. Practical experiments. Mr. Grimshaw.

Tex. 216. Principles of Fabric Finishing. 0-0-3
and
Tex. 217. Principles of Fabric Fnishing Laboratory. 1-1-1

Elective for Textile students.

A study of machinery used in finishing of textile fabrics and in textile printing with lectures and pictures. Lectures on materials used in the textile finishing and printing industry and experiments. Mr. Grimshaw.

Courses for Graduates and Advanced Undergraduates

Tex. 301. Yarn Manufacture IV. 3-0-0
and
Tex. 302. Yarn Manufacture Laboratory IV. 1-1-1

Required of seniors in Textile Manufacturing. Prerequisite: Yarn Manufacture, Tex. 201, 202.

Tex. 303. Yarn Manufacture V. 3-3-0
and
Tex. 304. Yarn Manufacture Laboratory V. 2-2-2

Required of seniors in Yarn Manufacturing. Prerequisite: Yarn Manufacture, Tex. 203, 204.

Spinning; spooling; twisting. Description and setting of different parts. Builder motions for warp and filling. Bobbin holders, thread guides, traverse motions. Ply yarns. Calculations for twist, speed, and production.

Practical methods of spinning, spooling, winding and twisting. Setting of spinning rolls, spinning frame builder motions for warp, filling and combination build. The practical application of all machines in Yarn Manufacture.

Mr. Hilton.

Tex. 305. Knitting II. 0-3-0
and
Tex. 306. Knitting Laboratory II. 1-1-1

Elective for Textile students.

Advanced circular mechanisms. Hosiery design. Auxiliary knitting machinery. Warp and spring needle knitting. Knitting machinery layout and organization. Production control and costs. Laboratory experiments. Mr. Hardin.

Tex. 307. Textile Calculations I. 3-0-0

Required of juniors in Yarn Manufacturing. Elective for others. Prerequisite: Yarn Manufacture, Tex. 102.

Principles underlying the calculation of draft, twist, speed, and production. Systems of numbering yarns. Doubling and twisting yarns. Lay, tension, differential, and cone drum calculations. Practice in solving practical mill problems. Mr. Hilton.

Tex. 308. Manufacturing Problems. 0-0-3

Required of seniors in Yarn Manufacturing. Elective for others. Prerequisite: Yarn Manufacture, Tex. 203.

Mill organization and administration. Machine layout for long and regular draft spinning; production control and costs; making of novelty yarns; making of daily and weekly reports; breaking of single and ply yarns. Regular and reverse twisted yarns. Mr. Hilton.

Tex. 309. Cotton and Rayon Fancy Design I. 3-3-3

Required of seniors in Textile Manufacturing. Elective for others. Prerequisite: Fabric Design and Analysis, Tex. 205.

Tex. 310. Cotton and Rayon Fancy Design II. 4-4-4

Required of seniors in Weaving and Designing. Prerequisite: Fabric Design and Analysis, Tex. 206.

Designing fancy and jacquard fabrics. These fabrics include tablecloths, figured double plain; matelasse, velvet, corduroy. Leno weaves with one, two, or more sets of doups. Combinations of plain and fancy weaves with leno. Methods of obtaining leno patterns. Methods of making original designs by combinations of color, weave, and sketches. Designs for table napkins, table covers, dress goods, draperies. Mr. Nelson.

Tex. 311. Fabric Analysis III. 1-1-0

Required of seniors in Textile Manufacturing and Weaving and Designing. Elective for others. Prerequisite: Fabric Design and Analysis, Tex. 205.

Analyzing samples of cotton, wool, worsted, linen, rayon, and silk fabrics for size of yarns, ends and picks per inch, weight of warp and filling, so as to accurately reproduce samples analyzed. Obtaining design, drawing in draft, chain, and reed plan for fancy fabrics, such as stripes, checks, extra warp and extra filling figures, leno fabrics, jacquard fabrics, draperies. Mr. Nelson.

Tex. 312. Cotton and Rayon Fancy Weaving. 0-0-3
and
Tex. 313. Cotton and Fancy Weaving Laboratory I. 1-1-1

Required of seniors in Textile Manufacturing and Weaving and Designing. Elective for others. Prerequisite: Dobby Weaving, Tex. 207, 208.

Tex. 314. Cotton and Rayon Fancy Weaving Laboratory II. 2-2-2

Required of seniors in Weaving and Designing. Prerequisite: Dobby Weaving, Tex. 209.

Principles of loom construction to weave rayon and fine cotton fabrics. Pick and pick looms. Box and multiplier chain-building. Arrangement of colors in boxes to give easy running loom. Extra appliances for weaving leno, towel, and other pile fabrics. Construction and operation of single, double lift, and rise and fall jacquards. Tie-up of harness for dress goods, table napkins, damask, and other jacquard fabrics, such as leno. Relative speed of looms. Production calculations and fabric costs.

Operation and fixing of dobby, pick and pick, and jacquard looms. Preparation of warps to weave rayon and fine cotton fabrics. Building of box, dobby, and multiplier chains. Mr. Nelson, Mr. Hart.

Tex. 315. Color in Woven Design. 3-3-0

Elective for Textile students. Prerequisite: Fabric Structure and Analysis. Tex. 106.

Pigment and light theories of color. Contrast and harmony of color. Factors which influence quality, style, and color. Methods of applying weaves and color to fabrics for wearing apparel and home decorations. Mr. Hart.

Tex. 316. Textile Calculations II. 0-0-3

Elective for Textile students. Prerequisite: Fabric Structure and Analysis. Tex. 106.

An intensive course in calculations for designing, weaving, and analyzing cotton, rayon, silk, wool, worsted and linen yarns and fabrics. Weight of fabrics, ends and picks per inch. Costing of fabrics. Reed and harness calculations. Loom speed and production. Mr. Hart.

Tex. 317. Cotton and Rayon Dyeing II. 0-3-3
and
Tex. 318. Cotton and Rayon Dyeing Laboratory II. 2-2-2

Required of seniors in Textile Chemistry and Dyeing. Prerequisite: Dyeing II. Tex. 212, 213.

Theories of color matching. Lectures on color mixing, water and mold, starch, materials used in sizing. Lubricating oils, textile oils and oil compounds. Processes and machinery used in dyeing and finishing. Method of analyzing textile fabrics. Laboratory equipment used in textile research and testing laboratories.

Color matching. Physical and chemical examination and application of textile oils, soaps and finishing compounds. Microscopical and chemical tests on rayons. Dyeing various types of rayon. Operation of dyeing and finishing equipment in the dye house and research laboratories. Mr. Grimshaw.

Tex. 319. Textile Testing. 1-1-1

Elective for Textile students. Prerequisite: Tex. 109 or equivalent.

Tests for moisture content, regain, twist, and tensile strength. Description and operation of testing equipment. Solution and written reports of assigned textile problems. Mr. Hart, Mr. Hilton.

Courses for Graduates Only

Tex. 401. Yarn Manufacture. 3-3-3

A study of breaking strength and related properties of cotton yarns made under various atmospheric conditions; comparison of yarns produced from long and short-staple cotton with regular and special carding processes; efficiency of various roller covering materials at the drawing processes; elimination of roving processes by special methods of preparation; comparison of regular and long-draft spinning. Mr. Hilton.

Tex. 402. Textile Research. 3-3-3

A study of the moisture content of cotton, yarns, and fabrics. The convolutions in cotton fibres and their relation to spinning, weaving, and dyeing. The effect of mercerization on cotton yarns and fabrics. Testing yarns and fabrics under variable conditions for breaking strength and elasticity. Textile Staff.

Tex. 403. Textile Design and Weaving. 3-3-3

Study and practice in more advanced designing and analyses of fabrics, such as lenos made with twine and wire doups, lappits, and other fancy fabrics. Designing for jacquard dress goods, table covers, reversibles, and other fabrics. Making original designs for dobby and jacquard fabrics. Fabric costs. Weaving fancy and jacquard fabrics. Mr. Nelson, Mr. Hart.

Tex. 405. Domestic and Imported Fabrics. 0-3-0

A technical study of imported and domestic fabrics, such as broadcloths, venetian, organdy, lawn, voile, crepe, shirting, dotted swiss, drapery, and other fabrics used for decorative purposes.

Types and characteristics of fabrics imported and exported by foreign countries. Qualities and styles of textile fabrics. Mr. Nelson.

Tex. 406. Textile Dyeing. 3-3-3

The course consists of matching shades from standard and season color cards upon classes of materials which require skill in their dyeing, such as three-fibre, cotton-wool, and half-silk hosiery, woolens and worsteds with effect stripes, and cotton fabrics with woven figures or stripes of the different varieties of artificial silk. Advanced work on chemical and microscopical examination of materials used in dyeing and finishing. Mr. Grimshaw.

Tex. 407. Advanced Textile Microscopy. 0-0-3

Microscopic study of textile starches, fibres, fabrics, oils, etc.

Study of mounting media for above. Methods of mounting textile materials. Methods of cross-sectioning textile materials. Photomicrography.

Mr. Grimshaw.

Tex. 408. Seminar. 1-1-1

Discussion of scientific articles of interest to textile industry. Review and discussion of student papers and research problems. Textile Staff.

ZOOLOGY

Courses for Undergraduates

Zool. 101. General Zoology. 4-4-0

Required of freshmen or sophomores in Agriculture. This course or Botany 101, 102 is required in the School of Science and Business.

An elementary study of animals, with special reference to the vertebrates and the more important economic groups; designed to give the student a general knowledge of the animal kingdom.

Mr. Metcalf, Mr. Mitchell, Mr. Meacham, Mr. Bostian, Mr. Horton, Mr. Lay.

Courses for Advanced Undergraduates

Zool. 201. Animal Physiology. 3-3-0

Elective for sophomores in Agriculture. Prerequisite: Zool. 101.

Comparative physiology of vertebrates, with particular reference to mammals and man. Detailed studies of various functions, metabolism emphasized.

Mr. Bostian, Mr. Meacham.

Zool. 204. Economic Entomology. 0-0-3

Required of freshmen in Forestry, sophomores in Biological Science, and juniors in Agriculture. Prerequisite: Zool. 101.

A general study of the insects, including their economic importance, with emphasis upon control of the more important local species. Mr. Mitchell.

Zool. 205. Comparative Anatomy. 3-3-0

Required of juniors in Biological Science. Prerequisite: Zool. 101.

Comparative morphology of vertebrates. Interrelations of organ systems studied for the various groups. Mr. Bostian.

Zool. 207. Vertebrate Embryology. 0-3-0

Required of seniors in Poultry Production and Biological Science. Prerequisite: Zool. 101.

The comparative embryology of the principal groups of vertebrates, with special emphasis on the chick and the pig. Mr. Bostian.

Zool. 208. Beekeeping. 3-0-3

Elective for juniors and seniors. Prerequisite: Zool. 101.

Designed to give the principles of scientific beekeeping and honey marketing.

Mr. Meacham.

Zool. 210. Forest Entomology. 0-3-0

Prerequisite: Zool. 204.

A special study of forest insects, including the factors governing abundance, and the application of this knowledge in control. Mr. Mitchell.

Zool. Ex. 220. Animal Nature Study. 3 credits

Prerequisite: Zool. 101, 204 or 205.

For grade school teachers and high school science instructors.

Mr. Metcalf, Mr. Mitchell, Mr. Bostian.

Courses for Graduates and Advanced Undergraduates

Zool. 301. Applied Entomology. 3-3-3

Prerequisite: Zool. 204.

A detailed study of the relation of insects to human welfare and the principles of insect control; the special study of the more important insects directly or indirectly affecting man; and a special study of methods of investigation.

Mr. Mitchell.

Zool. 304. Genetics. 4-4-4

Required of juniors in Agriculture. Elective for juniors and seniors in General Science. Prerequisite: Bot. 101 and 102 or Zool. 101.

Basic principles of heredity and variation. Students carry on and analyze breeding experiments, analyze inheritance in various animals and plants.

Mr. Bostian.

Zool. 307. Systematic Zoology. 0-3-3

Required of juniors in Biological Science. Prerequisite: Zool. 101, 202.

The classification of various groups of animals.

Mr. Metcalf, Mr. Mitchell.

Zool. 309. Field Zoology. 0-0-4

Prerequisite: Zool. 101, and 204 or 205, 206.

The study of the relation between animals and their environment. Frequent excursions to the field will be taken. Mr. Metcalf, Mr. Bostian.

Zool. 310, 311, 312. Laboratory Technique.

Prerequisite: Zool. 101 and 205.

Microscopical technique, taxidermy and illustrating, with special reference to their use by the scientist. Mr. Metcalf, Mr. Mitchell.

Courses for Graduates Only

Zool. 401, 402. Systematic Entomology. 3-3-3

Prerequisite: Zool. 307.

Codes of nomenclature, methods of writing descriptions, constructing keys, determining priority, selecting and preserving types, and making bibliographies and indexes. Mr. Metcalf, Mr. Mitchell.

Zool. 403, 404. Research in Zoology. 3-3-3

Prerequisite: Eighteen term credits in Zoology.

Problems in development, life history, morphology, ecology, genetics, taxonomy, or parasitology.

Mr. Metcalf, Mr. Meacham, Mr. Mitchell, Mr. Bostian.

Zool. 405. Seminar.

Prerequisite: Eighteen term credits in Zoology. Mr. Metcalf.

SUMMARY OF ENROLLMENT, 1932-33

ENROLLMENT BY CLASSES

1. Resident Students.*		
A. Candidates for Degrees.		
1. Freshmen	543	
2. Sophomores	444	
3. Juniors	273	
4. Seniors	292	
5. Graduates	90	
6. Graduates for Professional Degrees	2	
Total	1,644	1,644
B. Irregular Students.		
1. Extension Classes in Raleigh and Cary	115	
2. Special Students for College Credit	17	
3. Irregular College Students	23	
4. Special Mechanic Arts Students (No College Credit)	30	
†5. Special Mechanic Arts Students in Telephone and Radio Engineering (No College Credit)		
Total	185	1,829
C. Short-Course Students (No College Credit).		
***1. Electrical Metermen Short Course		
2. Poultry Short Course (one week)	77	
Total	77	1,906
2. Nonresident Students.**		
A. Correspondence Students for College Credit	348	
B. Extension Students (Classes Outside Raleigh)	440	
C. Correspondence Students in Practical Courses (No College Credit)	11	
Total	799	2,705
3. Summer School Students, 1932.		
A. Regular Students (Six Weeks)	296	
B. Cotton Classing Students (Six Weeks); No College Credit	13	
Total	309	3,014

*Does not include spring term 1932-33.
**Data from January 1932 to January 1933.
***Electrical Metermen Course not given 1932-33; will be offered 1933-34.
†Special Mechanic Art Course not given 1932-33; will be offered in 1933-34.

C. Short-Course Students (No College Credit).

1. Agricultural Teachers (One Week)	146
2. Farm Boys	184
3. Farm Girls	250
4. Farm Men and Women	1,329
5. Farm and Home Agents (One Week)	141
6. Young Tar Heel Farmers	239
Total	2,289
Grand Total	5,303

The following classifications include candidates for degrees, irregular students, and special students for college credit.

ENROLLMENT BY SCHOOLS

Agriculture	265
Education	216
Engineering	674
Science and Business	396
Textiles	133
Total	1,684

ENROLLMENT BY CLASSES

Graduates	90
Seniors	292
Juniors	273
Sophomores	444
Freshmen	543
Specials	17
Irregular	23
Professional Degree	2
Total	1,684

*ENROLLMENT BY CURRICULA

Agriculture

General Agriculture	53
Agricultural Economics	23
Agricultural Specialists:	
Agricultural Engineering	1
Animal Production	30
Dairying	3
Field Crops and Plant Breeding	4
Game Management	2
Olericulture and Floriculture	3
Plant Pathology	6
Poultry	7
Soils and Fertilizers	9
Majors unselected	16
Forestry	91
Landscape Architecture	17
Total	265

Science and Business

Business Administration	273
Industrial Management	24
Biology	22
Zoology	9
Chemistry	34
Physics	6
Science	1
Geology	2
General Business	20
Mathematics	1
Economics	4
Total	396

*Graduate students in some cases classified by departments.

Education

Commercial Teachers	1
High School Teachers	120
Industrial Arts	7
Agricultural Education	88
Total	216

Engineering

Architectural	31
Aeronautical	73
Ceramic	25
Chemical	174
Civil	59
Construction	26
Electrical	148
Highway	3
Industrial	6
Mechanical	109
Mining	5
Sanitary	7
No preference	6
Total	672

Textiles

Chemistry and Dyeing	30
Manufacturing	101
Yarn Manufacturing	2
Total	133

Graduate

(Counted in Departmental Classification)

Graduate Students in:

Agriculture	19
Education	30
Engineering	14
Science and Business	22
Textiles	5
Total	90

FORTY-THIRD ANNUAL COMMENCEMENT
JUNE 7, 1932
DEGREES CONFERRED
SCHOOL OF AGRICULTURE

Bachelor of Science

IN AGRICULTURE

Wallace Kincaid Bailey
John Fuller Brown
Richard Edward Byrd
Roy Howard Crouse
Russell Emmett Davenport
Hosea Arnold Frank
James Elmo Greene
Hagop Hagopian
Ned Alexander Hood
Willie Horton Keith
Joseph Wheeler Kelly
Robert Alton Meares
Clarence Fentress O'Quinn
James Martin Parks
James Arthur Rhyne
John Perry Ryals
Herbert William Scheld
Theodore Samuel Sloan
Hugh Roy Smith
James Alton Sutton
John Baxter Watts
William Walton Woodhouse

IN FORESTRY

William Edward Cooper
Arthur Allen Grumbine
John Jacob Kerst
Albert Herr Maxwell
Frank Joseph Miller
Charles Gordon Royer
George Kreidler Schaeffer
Paul William Tillman
William Herbert Warriner
Luther Williams, Jr.

IN AGRICULTURAL ECONOMICS

Leslie Ashford Edwards
Josiah Evans Hull

IN LANDSCAPE ARCHITECTURE

Elizabeth Lewis Lawrence
Henry O'Quinn
Edward Gilbert Thurlow

SCHOOL OF EDUCATION

Bachelor of Science

IN AGRICULTURAL EDUCATION

William Clifton Boyce
H. B. Crumpler, Jr.
Columbus Herman Drye
Robert Charles Evans
George Bonson Hobson
Riley Melvin Holder
Ernest Franklin Hubbard
Herman Brooks James
Randal Johnson Lyday
Edgar Spinks McLeod
James Hughie Mobley
Robert Penelton Moore
Claudie VanBuren Morgan
Calvin Clyde Murray
Joseph Graham Pollock
Lexie Ray
Fletcher Allen Shoe
Robert Royall Smithwick
John Marion Taylor
Cleo Coan Triplett
Lacy Franklin Weeks
William Farmer Wilson

IN HIGH SCHOOL TEACHING

Jane Virginia H. Andrews
William Hunt Averette
Maude Rhodes Barnes
Murphey Livingston Barnes
Albert Edward Bennett
Dorothy Beverly Blankenship
Glenn Woodburn Bunting
Mary Clyde Cotner
Harriett Norment Covington
Edith Wells Cowper
Janet Crinkley
Mary Lythriel Estes
Jennings Bryan Eubanks
James Rose Floyd
Martin Cecil Freeman
Lavenia Adelaide Fuller
Mattie Lee Gardner
James Anthony Gerow
Elizabeth Gibson
Mary Leah Godwin
Charlotte Hilton Green
Mary Elizabeth Hodges
Nancy McCullers
Linda Catherine Maddry
Gladys Melvin
Emily Katherine Perry
Edwin Rudolph Poole
Josephine Douglass Richards
Anne Elizabeth Robertson
Ethel McGee Rowland
Seymour Satterwhite
Maud Kennedy Schaub
Wayland Pritchard Seagraves
Mary Joe Swicegood

IN INDUSTRIAL ARTS

William Haynes Fowler
Macon Rogers Rowland

SCHOOL OF ENGINEERING

Bachelor of Science

IN ARCHITECTURAL ENGINEERING

Henry Ottis Bost
Henry Stanhope Brooks
Sherwood Battle Brockwell, Jr.
Thomas Clark Farmer
Rowe Allen Mauney
Henry Reavis Meinung
Walter Guy Mendenhall
Harley Harrison Welch
James Lewis Williams

IN CERAMIC ENGINEERING

William Casper Bangs
Henry Eddius Craven, Jr.
Edward Constantine Davidson
Charles Campbell Morrison
John Ferguson Purnell

IN CHEMICAL ENGINEERING

Stanley Irving Allen
John Mitchell Barnes
William Long Belvin
Walter Kerr Cathey
Charlie Voyght Clapp
Milton Macon Croom
Leonard William England
Alfredo Gonzalez
Charles Neno Gross
Gilbert Ward Hilliard
Sherman Edward Holloway
Emil Clement Lebeau
Charles Romeo LeForte
Robert Williamson McIver
Leslie Morris Mauney
William Russell Middleton
Arthur Parks Moss
Julius Worth Neelley
Maurice Holroyd Norlander
Archibald Staten Robertson, Jr.
Daniel Cecil Seely
Robert Bruce Spencer, Jr.
John Eugene Thompson, Jr.
Hiram Elwood Williams

IN CIVIL ENGINEERING

John Grange Ashe, Jr.
Thomas Lawrence Hodges
Earle Colvin Hubbard
Daniel Edwin McDonald
William Smith Ragsdale, Jr.

IN CIVIL AND HIGHWAY ENGINEERING

George Lewis Barrier
Francisco Roberto Gonzalez
Howard Maxwell Hayes
Lewis King Smith
Harold Cobb Yelverton

IN CIVIL ENGINEERING AND SANITARY OPTION

Louis Octavius Franklin
Raymond Wesley Leonard
Carroll Lamb Mann, Jr.
Fenner Harvey Whitley, Jr.
Maxwell C. Wolfe

IN CIVIL ENGINEERING, SANITARY OPTION

Eccles Hinkle Scott

IN CIVIL ENGINEERING, CONSTRUCTION OPTION

Frazier McLean Edwards
William Frank Gilbert, Jr.
Marshall Cox Jennette
Ralph Harold Weisner
James Lewis Williams

IN ELECTRICAL ENGINEERING

Henry Yeatman Brock, Jr.
Alan Branson Campbell
William Mitchell Cates
Elijah Longstreet Daughtridge
Langdon Chevis Hubbard, Jr.
Charlie Smith Ireson
Joseph Armfield Leinster
Edward Clarence McKinney
Robert Frederick Montony
John Perry, Jr.
John Frontis Riddick
Glenn Elmo Ritchie
James Willard Southerland
William Earlie Vinson
William Jefferson Walker
James Edwin Whitehead
Joshua Thomas Winstead, Jr.
David Alton Worsley

IN MECHANICAL ENGINEERING

Hugh Foster Anderson
Joseph Turney Banks
George Edward Barber, Jr.
Dwight Kermit Clodfelter
William Thomas Crawford
Francis August Geile
Frank Wimberly Gorham
James Warren Halstead, Jr.
William Gustav Kirchheimer
Owen Barnes Moore
Robert Glenn Richardson
Joseph Harlin Sherrill
Henry Ivey West
John Clifton Whitehurst

IN MECHANICAL ENGINEERING, AERONAUTICAL ENGINEERING OPTION

Daniel Lawrence Hogsette
Horace Edmund Karig
Hugh Hargrave Murray, Jr.
Henry Alley Ricks
Kim Thompson Speer

SCHOOL OF SCIENCE AND BUSINESS

Bachelor of Science

IN BUSINESS ADMINISTRATION

Bruce Dandridge Alcorn
John Henry Bayless
Earle Thomas Baysden
Charles Edward Brake
David Fairley Cade
Richard Kenneth Carrigan
James Lanier Carter
Gerald Potter Dickinson
Jack Griffin Dodd
Philip Leonis Dughi
David Warren Finch
Alfred Rawles Guthrie
Cassius Rex Hudson, Jr.
Curtis Cameron Lane
William Bynum McKenzie
William Chester Massey, Jr.
William Robert Mercer
Edward Clarence Mewborn
Duane Winton Murray
James Henderson Reel
David Krauth Rhyne
Gabriel Hoge Robinson
Arthur Duane Rose
Dennis Austin Rose
Paul Jerome Seligson
Mitchell Lee Shipman, Jr.
William Levi Shoffner
Ralph Augustus Thomas
Andrew Jackson VanLandingham
Lewis Patrick Warren
Valton Russell Williams
Archibald Jordon Wilson

IN GENERAL BUSINESS

Charles Duffy Franck
William Jennings Kelley
Haskins Neblett Marriott
Katherine Woodrow Sams
Richard Edwin Yates

IN CHEMISTRY

Josiah Fowler Allen
David Laxton Davenport
Samuel O'Brien Jones
William Simpson McKimmon
Henry Douglas Matheson
Clay Bulla Rich
Jeff Carlyle Smith
Bartholomew Andrew Streb

IN INDUSTRIAL MANAGEMENT

Wilmer Grant Collier
Charles Herbert Eastep
William Primrose McPherson

IN BIOLOGY

James Ralph Weedon

SCHOOL OF TEXTILES

Bachelor of Science

IN TEXTILE CHEMISTRY AND DYEING

James Edward Gill
Jurgen Haar, Jr.
John Dixie Honeycutt

IN TEXTILE MANUFACTURING

Jake Charles Barnhardt
John York Bass
Carl Andrews Boggs
Ernest Milton Boyette
Samuel White Bright
Philip Henry Burrus, Jr.
Guy Washington Byrd
Miles Alexander Carpenter
Harry Clifton Carter
Clarence Newson Cone, Jr.
Eugene Cross, Jr.
David Jefferson Crowell
Edgar Wilson Freeze, Jr.
James Beasley Lamar
Marvin Amos Law
Herbert Grady Lyon
James Dewey Milstead
George Lee Patterson, Jr.
J. Howard Tatum
William Ross Wands
Newell Russell Whitener

IN YARN MANUFACTURING

Edward Wilson Crow, Jr.
Owen Joseph Mullaney, Jr.
K. K. Thomas

Master of Science

IN AGRICULTURAL ECONOMICS

Sheldon LeRoy Clement
B.S., Mississippi A. & M.

Daniel Howard McVey
B.S., N. C. State College

Charles Anthony Sheffield
B.S., N. C. State College

IN ANIMAL HUSBANDRY

William Leander Clevenger
B.S., Ohio State University

Andrew Wilson Nesbitt
B.S., Berea College

IN BOTANY

Melvin Crafton
B.S., Miami University

IN CERAMIC ENGINEERING

William Lewis Fabianic
B.S., Alfred College

Hilton Lowry Longnecker
B.S., Ohio State University

Norman Henry Stolte
B.S., Alfred College

IN CHEMICAL ENGINEERING

James Mack Morrow
B.S., N. C. State College

Richard Calvin Tucker
B.S., N. C. State College

IN CIVIL ENGINEERING

Kit Bryan
B.E., N. C. State College

John Jacob Davis
B.S., N. C. State College

Archie Bertram Freeman
B.S., N. C. State College

IN ECONOMICS

Angus Allen Jackson
B.S., N. C. State College

G. Gordon Osborne
B.T.E., Lowell Textile Institute

IN EDUCATION

Hieronymus Bueck
B.S., N. C. State College

Viola Seltz Burch
A.B., N. C. College for Women

Virginia Albright Eldridge
B.S., N. C. State College

Roger Powell Marshall
A.B., Wake Forest College

Robert Alton Taylor
B.S., Clemson College

Hulda Brinkley Turner
A.B., N. C. College for Women

IN MECHANICAL ENGINEERING

Frank Brown Turner
B.S., N. C. State College

IN POULTRY

Freeman Waldo Cook
B.S., N. C. State College

IN SOILS

William Walter Stevens
B.S., N. C. State College

IN TEXTILES

John Thomas Hilton
B.S., N. C. State College

Lilian Tyler Jones
B.S., University of Wisconsin

George Henry Norman
B.S., Texas A. & M. College

IN ZOÖLOGY

George Horton
B.S., University of Tennessee

Harmon Reed Johnston
B.S., Miss. A. & M. College.

George Balch Lay
A.B., University of N. C.

PROFESSIONAL DEGREES

Electrical Engineer

Edwin Yates Webb, Jr.
B.S., N. C. State College

Mechanical Engineer

R. D. Van Sisk
B.S., N. C. State College

Chemical Engineer

Cornelius Sherman Grove, Jr.
B.S., N. C. State College

HONORARY DEGREES

O. Max Gardner, Doctor of Laws
Rueben B. Robertson, Doctor of Science
James Alexander Powell, Doctor of Science

DEGREES CONFERRED AT THE CLOSE OF SUMMER SCHOOL, JULY 21, 1932

Bachelor of Science

SCHOOL OF AGRICULTURE

IN AGRICULTURE

George Carrington Mason
Harold Booth Merriam
Samuel Chaffin Rich
Bruce Henry Staton

SCHOOL OF EDUCATION

IN AGRICULTURAL EDUCATION

Ivey Corman Brown

IN HIGH SCHOOL TEACHING

Clara Paschal Cheek
Hazel Gertrude Hamilton
Elizabeth Jasper
Rachel Blanche Lancaster
Vassar Cameron Matthews
Walter Mallette Pearson
Hood Waldo Rood
George Edgar Silver
Dorothy Turlington
Wesley Wallace
Carolina Wilson

IN COMMERCIAL TEACHING

James Dewey Powell

SCHOOL OF ENGINEERING

IN ARCHITECTURAL ENGINEERING

R. Hunter Colgin

IN ELECTRICAL ENGINEERING

William Christopher Millner

SCHOOL OF SCIENCE AND BUSINESS

IN CHEMISTRY

John Reed Bumgarner

IN BUSINESS ADMINISTRATION

Joseph Glenn Moss
Duncan Cooper Rogers
Roy Dewanner Stallings

IN INDUSTRIAL MANAGEMENT

Morgan Hadley Hutchison
John Perkins Rabb

SCHOOL OF TEXTILES

IN TEXTILE MANUFACTURING

Thomas Gibson Tyson

Master of Science

IN CHEMISTRY

Ernest Leland Greene
B.S., N. C. State College

IN EDUCATION

Lindsey Otis Armstrong
B.S., N. C. State College
Dorothy Beverly Blankenship
B.S., N. C. State College
Louise Duncan Carson
Ph.B., University of Chicago
Pearle Clardy
A.B., Winthrop College
Winifred M. Kuhns
A.B., Randolph-Macon College
Louise Augusta Smaw
A.B. Duke University

IN AGRICULTURAL EDUCATION

Frank Edgar McClain
B.S., Ohio Wesleyan

IN FORESTRY

George Kellogg Slocum
B.S., N. C. State College

IN SOILS

Archie David Stuart
B.S., N. C. State College

PROFESSIONAL DEGREES

Master of Agriculture

Dwight Hendricks Osborne
B.S., N. C. State College
Crawford Allen Rose
B.S., Alabama Polytechnic Institute

STUDENTS GRADUATING WITH HIGH HONORS IN SCHOLARSHIP

1932

Josiah Fowler Allen
Wallace Kincaid Bailey
Charles Edward Brake
Henry Yeatman Brock, Jr.
Janet Stewart Crinkley
David Warren Finch
Elizabeth Gibson
Charlotte Hilton Green
Daniel Lawrence Hogsette
Samuel O'Brien Jones
Horace Edmund Karig
Marvin Amos Law
Emil Clement Lebeau
Linda Catherine Maddry
Arthur Parks Moss
Glenn Elmo Ritchie
Seymour Satterwhite
George Kreidler Schaeffer
James Willard Southerland
Mary Joe Swicegood
William Earlie Vinson
Ralph Harold Weisner
Harold Cobb Yelverton

STUDENTS GRADUATING WITH HONORS IN SCHOLARSHIP

1932

Stanley Irving Allen
Maude Rhodes Barnes
William Long Belvin
Albert Edward Bennett
Dorothy Beverly Blankenship
William Clifton Boyce
Philip Henry Burrus, Jr.
Walter Kerr Cathey
Charlie Voyght Clapp
Clarence Newton Cone, Jr.
William Edward Cooper
Mary Clyde Cotner
Columbus Herman Drye
Frazier McLean Edwards
Leonard William England
Louis O. Franklin
Lavenia Adelaide Fuller
William Francis Gilbert
Leah Mary Godwin
Alfredo Gonzalez
Charles Neno Gross
Arthur Allen Grumbine
James Warren Halstead, Jr.
Mary Elizabeth Hodges
Thomas Lawrence Hodges
Riley Melvin Holder
Josiah Evans Hull
Charles Smith Ireson
Herman Brooks James
Joseph Wheeler Kelly
William Gustav Kirchheimer
Curtis Cameron Lane
Raymond Wesley Leonard
Randal Johnson Lyday
Nancy Costave McCullers
William Simpson McKimmon
William Primrose McPherson
Carroll Lamb Mann, Jr.
Haskins Neblett Marriott
Gladys Melvin
William Russell Middleton, Jr.
Frank Joseph Miller
Charles Campbell Morrison
Calvin Clyde Murray
Julius Worth Neelley
Maurice Holroyd Norlander
Henry O'Quinn
Emily Katherine Perry
Dennis Austin Rose
Maude Kennedy Schaub
Herbert William Scheld
Wayland Pritchard Seagraves
Paul Jerome Seligson
Louis King Smith
James Alton Sutton
John Marion Taylor
John Eugene Thompson, Jr.
Paul William Tillman
William Herbert Warriner
John Clifton Whitehurst
Newell Russell Whitener
Fenner Harvey Whitley, Jr.
James Lewis Williams
Richard Edwin Yates

MEDALS AND PRIZES AWARDED IN 1931-32

PHI KAPPA PHI SCHOLARSHIP MEDALS

Senior—Richard Edwin Yates, Mocksville, N. C.

Junior—James Lee Zimmerman, Lexington, N. C.

Sophomore—Wymant Clair Moorman, Clifton, N. J.

SCHOOL OF SCIENCE AND BUSINESS AWARD

Willie E. Duke, Raleigh, N. C.

Ceramic Awards

J. C. STEELE SCHOLARSHIP CUP

Charles C. Morrison, Cherryville, N. C.

MOLAND-DRYSDALE SCHOLARSHIP CUP

Wm. R. McLain, Statesville, N. C.

ALPHA ZETA SCHOLARSHIP CUP

Ferol V. Harris, Pike Road, N. C.

SIGMA TAU SIGMA (TEXTILE) AWARD

Marvin A. Law, Paw Creek, N. C.

TAU BETA PI SCHOLARSHIP CUP

T. J. Raber, Haddonfield, N. J.

WHITE SPADES SCHOLARSHIP CUP (INTERFRATERNITY ORDER)

Leroy Thiem, Jr., Raleigh, N. C.

FRATERNITY SCHOLARSHIP CUP

Alpha Kappa Pi Fraternity—Grade 80.29

DELTA SIGMA PI SCHOLARSHIP KEY

Charles Edward Brake, Rocky Mount, N. C.

INTERSOCIETY DECLAMATION MEDAL

L. M. Knott, Wendell, N. C.

INTERSOCIETY ORATORS MEDAL

J. E. Gill, Henderson, N. C.

THE NATIONAL ASSOCIATION TEXTILE MANUFACTURERS MEDAL

Newell R. Whitener, Gastonia, N. C.

ASSOCIATED GENERAL CONTRACTORS ANNUAL AWARD

Frazier M. Edwards, Greensboro, N. C.

SENIOR ORATORICAL MEDAL

Miss Jane Virginia Hawkins Andrews, Raleigh, N. C.

SOUTHERN ASSOCIATION OF TEACHERS OF SPEECH

L. M. Knott, Wendell, N. C.

THE ALUMNI TROPHY

A. D. "Bud" Rose, Marshall, Minn.

THE ELDER P. D. GOLD CITIZENSHIP MEDAL

Chas. Romeo Lefort, Greensboro, N. C.

INDEX

	Page
Administration, Officers of	8
Admission	52, 63, 93, 120, 135, 143
Advanced Standing	54, 63, 96, 120, 135
Aeronautical Option, Mechanical Engineering II	114, 115
Agricultural and Home Economics Extension Office and Staff	21
Agricultural Economics and Rural Sociology	33, 72, 74, 150
Agricultural Education	81
Agricultural Engineering, Agronomy	153
Agricultural Experiment Station	79
Agricultural Experiment Station, Staff	18
Agricultural Extension Work, Cooperative	80
Agricultural Specialists, Curriculum	67
Agriculture, School of	62
Agriculture, Short Courses	79
Agronomy, Agricultural Engineering, Field Crops, Soils	34, 53, 195, 231
Animal Husbandry	34, 155
Applicants, Information for	51
Architectural Engineering	35, 94, 95, 159
Assemblies, Student	55
Athletics and Physical Education	48, 222
Biology	128, 129
Board	58
Board of Trustees	5
Botany	35, 161
Buildings	30
Business Administration	122, 123
Calendar, College	3
Ceramic Engineering	35, 96, 97, 165
Chemical Engineering	35, 98, 99, 167
Chemistry	36, 130, 169
Chemistry, Industrial	131
Civil Engineering	36, 100, 101, 173
Clubs, Societies and Fraternities	43
College Extension	80, 185, 147
College Publications	42
Commencement, 1932	246
Construction Engineering	86, 104, 105
Credits and Grades	55
Curricula for University and College Graduates	63, 92, 121, 134
Degrees	64, 83, 93, 121, 135, 143
Degrees, Advanced	143
Description of Courses	150
Dormitories	33
Dramatics, Music	33
Economics	178
Education	184
Education, School of	81
Electrical Engineering	37, 108, 109, 190
Electrical Metermen, Short Course	99
Engineering Experiment Station	37, 118
Engineering, School of	91
English	191
Enrollment, Summary of	243
Expenses	56
Experiment Station, Agricultural	79
Experiment Station, Engineering	37, 118
Events	47
Executive Committee	7
Faculty	10
Farm Demonstration Agents	22
Fees	56, 57
Fellowships and Scholarships	142
Fellows, Scholars, and Student Assistants	17
Field Crops, Agronomy	195
Forestry	37, 75, 76, 198
Fraternities, Clubs and Societies	43
Game Management---Poultry	229
General Business	126, 127
Geology	202
Grades and Credits	55
Graduate School	142
Grades, Requirements for	64, 83, 93, 120, 135
High School Teachers, Curriculum	86
Highway Engineering	38, 102, 103, 203
History and Political Science	204
Home Demonstration Agents	25
Honors in Scholarship	253
Horticulture	38, 206

Industrial Chemistry 131
Industrial Engineering 110, 111, 208
Industrial Management 124, 125
Information for Applicants 51
Information, General 27
Inspection Trips 92, 137
Laboratories, Shops and Facilities 33
Landscape Architecture 77, 78, 209
Loan Fund, Student 58
Mathematics 211
Mechanical Engineering 39, 112, 113, 213
Mechanical Engineering II—Aeronautical Option 114, 115
Medals and Prizes 59
Military Science and Tactics 218
Military Training 50
Mining Engineering 116, 117, 219
Modern Languages 219
Music and Dramatics 47, 83
Officers of Administration 8
Physical Education and Athletics 48, 222
Physics 40, 132, 223
Poultry Science 40, 226, 229
Poultry—Game Management 229
Prizes and Medals 59
Professional Degrees 64, 93, 135 145
Publications, College 42
Publications, Student 48
Purpose of the Graduate School 142
Purpose of the School of Agriculture 62
Purpose of the School of Education 81
Purpose of the School of Engineering 90
Purpose of the School of Science and Business 119
Purpose of the Textile School 133
Refunds 57
Registration 54
Religion 229
Research Facilities 142
Room Rents 57
Rules of Eligibility 50
Rural School Principals and Teachers 82
Rural Sociology, Agricultural Economics 152
Sanitary Engineering 40, 106, 107
Scholars, Fellows, and Student Assistants 17
Scholarships and Fellowships 142
Science and Business, School of 119
Science Teachers 82
Self-Help 58
Shops, Laboratories and Facilities 33
Short Courses 79, 99, 134
Societies, Clubs and Fraternities 43
Sociology 230
Soils, Agronomy 231
Staff, Agricultural Experiment Station 18
Student Activities 42
Student Assemblies 55
Student Government 43
Student Loan Fund 58
Student Publications 48
Students, Regular, Irregular, and Special 51
Summer School 149
Summer Work, Requirement of 92
Teachers and Counselors of Vocational Guidance 82
Teachers of Agriculture, Curriculum 84
Teachers of Industrial Arts, Curriculum 85
Textiles 41, 233
Textile Chemistry and Dyeing 141
Textile Manufacturing 136, 137
Textile Mill Men, Short Course 134
Textile Research 141
Textile School 133
Thesis 144
Trustees, Board of 5
Tuition and Fees 56
Vaccination 54
Weaving and Designing 142
Yarn Manufacturing 143
Young Men's Christian Association 43
Zoology 42, 241

STATE COLLEGE RECORD

Vol. 31 SEPTEMBER, 1932 No. 8

DIRECTORY

Faculty and Students

of

North Carolina State College of Agriculture and Engineering

1932-1933

STATE COLLEGE STATION
RALEIGH

North Carolina State College Summer School

June 19 - July 28, 1932

A Summer School of strictly college grade. All work carries both college credit and certificate credit.

Students should avail themselves of Summer School to remove conditions and to get off work which will enable them to graduate earlier.

High school teachers can raise their certificates by attending Summer School and thus increase their salaries.

Teachers of experience can get courses designed to prepare them for principalships.

Courses carrying both undergraduate and graduate credit offered during Summer School.

For further information write

T. E. BROWNE, Director of Summer School
State College Station, Raleigh, N. C.

COME TO THE COLLEGE CAFETERIA AND GET A GOOD

HOME COOKED MEAL

"Under Dining Hall"

SERVING HOURS:

Breakfast	7:25 to 9:25
Lunch	12:00 to 2:00
Dinner	5:30 to 7:20

Sunday Breakfast	8:00 to 9:30

$5.50 MEAL BOOKS FOR $4.75

Faculty Directory, 1932-33

NOTE.—Telephone listed under each name is the residence phone. All members of the Faculty and employees may be reached by phone at the college by calling 2000 and asking for the person wanted.

Adams, Miss Hazel—Stenog. and Clk., Hort. Dept. 304 Polk Hall.
3 Swain Apts. 121 N. Person Street. Phone 2107-J.

Alford, Alonzo O.—Asst. Agricultural Editor, Extension-Experiment Sta., Div. of Publications. 115 Ricks Hall.
2 College Court Apts. Phone 4018-J.

Anderson, D. B.—Asso. Prof. Botany Dept. Basement, Patterson Hall.
906 Brooks Ave. Phone 1942-W.

Arey, John A.—Dairy Extension. 118 Polk Hall.
5 Maiden Lane. Phone 1788-R.

Armstrong, L. O.—Asso. Prof. of Education. Holladay Hall.
Dixie Trail.

Ballenger, S. T.—Asst. Prof. Modern Languages. 205 Peele Hall.
3134 Stanhope Ave. Phone 3308-R.

Barnes, Mrs. Mamie L.—Warp-drawer, Textile Dept. Tompkins Hall.
2004 Hillsboro St. Phone 935-J.

Barnhardt, L. W.—Asst. Prof. of History. 6 Pullen Hall.
1718 Hillsboro St. Phone 1027-J.

Beatty, W. H.—Asst. Fr. Football Coach. Gymnasium.
203 Fourth Dormitory.

Bernstein, E. M.—Asso. Prof. Business Administration. 203 Peele Hall.
117 Hillcrest Road. Phone 2108-M.

Biggs, Mrs. Vernon L.—Asst. Stenog., Div. of Publications. 113 Ricks.
1809 Park Drive. Phone 1158-J.

Bishop, Mrs. L. W.—Office Secretary, Y. M. C. A.
1306 Jackson Street.

Blair, E. C.—Extension Agronomist, Dept. of Agronomy. Patterson Hall.
125 Glenwood Ave. Phone 2349-W.

Bledsoe, Miss E. B.—Secretary, Dept. of Elec. Engr. 201 E. E. Bldg.
Brooks Ave. Phone 4155-J.

Bledsoe, Miss M. C. M.—Stenog. and Office Asst. Anim. Husb. Dept. Polk Hall.
Brooks Ave. Phone 4155-J.

Boshart, Edward W.—Prof. of Education. 11 Holladay Hall.
125 Woodburn Road. Phone 2132-W.

Bostian, C. H.—Asst. Prof. Zoöl. and Entomology. 109 Zoöl. Bldg.
402 Horne Street. Phone 1745-M.

Bowen, A. F.—Treasurer. 105 Holladay Hall.
20 Ferndell Lane. Phone 1654-W.

Boyette, Miss Ruth—Head Nurse. Infirmary.
College Infirmary. Phone 687.

Brannon, C. H.—Extension Entomologist, Dept. of Zoöl. 204 Zoöl. Bldg.
25 Logan Court. Phone 2261.

Bridgeforth, W. A.—Supt. Bldgs. and Grounds. Warehouse.
11 Maiden Lane. Phone 905-W.

Bridges, Frankie—Stenographer, M. E. Dept. 109 Page Hall.
202 Groveland Ave. Phone 2609-J.

Bridges, W. S.—Asst. Prof. Mechanical Engineering. 107 Page Hall.
125 Chamberlain Street. Phone 3933-J.

Briggs, Herman B.—Asso. Prof. Mechanical Engineering. 206 Page Hall.
2109 Fairview Road. Phone 2767.

Brigman, H. P.—Statistical Asst.. Poultry Dept. 214 Ricks Hall.
213 N. Bloodworth Street. Phone 2519-W.

Brooks, Eugene Clyde—President. Holladay Hall.
1901 Hillsboro Street. Phone 1533.

Brown, B. F.—Dean, Science and Business. 102 Peele Hall.
801 N. Bloodworth Street. Phone 816-W.

Brown, J. J. Coöperative Utilization Research in Cotton Fabric Constr. Textile Building.
501 Whitaker Mill Road. Phone 4112-J.

Brown, R. R.—Asst. Prof. in Elec. Engr. 104 E. E. Bldg.
102 Logan Court.

Browne, T. E.—Dean, School of Education. Holladay Hall.
1715 Park Drive. Phone 953-W.

Browne, Wm. H., Jr.—Prof. of E. E. and Head of Dept. 203 E. E. Bldg.
408 Dixie Trail. Phone 3848-J.

Campbell. Dr. A. C.—Physician. Infirmary.
302 Hawthorne Road. Phone 2110.

Capps, Frank—Librarian and Director of College Extension Div. Library.
2218 Ridgecrest. Phone 3333.

Carraway, W. E.—Asst. P. M. S. & T. Military Dept. 17 Holladay Hall.
1614 Ambleside Drive. Phone 1353.

Carson, W. M.—Loom Fixer, Textile Dept. Tompkins Hall.
Morrisville. N. C.

Case, Leland I.—Agent in Animal Husbandry. 216 Polk Hall.
1011½ Park Drive. Phone 896-W.

Caveness, H. L.—Asst. Prof. of Chemistry. 212 Winston Hall.
2303 Clark Ave. Phone 1745-XJ.

Cheek, Miss Emily—Loan Librarian. Library.
2512 Clark Ave. Phone 3763-W.

Clark. J. D.—Prof. of English and Chm. of Dept. 106 Pullen Hall.
15 Furches Street, Wilmont Park. Phone 1000-M.

Clement, S. L.—Asst. in Mktg., Agr. Econ. 118 Ricks Hall.
106 Horne Street. Phone 707-M.

Clevenger, W. L.—Prof. of Animal Husbandry and Dairy Mfg. 211 Polk Hall.
5 Maiden Lane. Phone 1788-R.

Cloyd, Edward Lamar—Dean of Students. 111 Holladay Hall.
2224 Hillsboro Street. Phone 1815-W.

Cobb, Wm. Battle—Prof. of Soils. 18 Patterson Hall.
2004 Clark Ave. Phone 1289-R.

Cook, F. W.—Disease Fellow, Poultry Dept. 218 Ricks Hall.
3205 Hillsboro Street. Phone 4523.

Cook, Leon E.—Prof. of Education. Holladay Hall.
111 Brooks Ave. Phone 3853-J.

Cotner, J. B.—Prof. of Plant Breeding, Agronomy Dept. 26½ Patterson Hall.
2718 Clark Ave.

Crafton, W. Melvin—Teaching Fellow, Botany Dept. Basement Patterson Hall.
2201 Clark Ave. Phone 1099-M.

Criswell, J. F.—Farm Mgt. Specialist. Ricks Hall.
407 Chamberlain Street. Phone 4230-J.

Crowder, W. G.—Plant Foreman, Poultry Dept.
Poultry Plant. Phone 1383.

Current, Miss Ruth—District Home Demonstration Agent. Ricks Hall.
407 N. Blount Street. Phone 2610-W.

Darst, W. H.—Prof. of Agronomy. 24 Patterson Hall.
1609 W. Park Drive. Phone 2758-J.

Davis, Mrs. Gertrude S.—Stenographer. Textile Dept. Tompkins Hall.
309 Linden Ave.

Dearstyne, R. S.—Head of Poultry Dept. 216 Ricks Hall.
921 W. South Street. Phone 1337-W.

Denmark, L. Polk—Alumni Secretary. Holladay Hall.
2247 Circle Street. Phone 3444-W.

Derieux, J. B.—Prof. of Physics. 110 Physics Bldg.
2802 Hillsboro Street. Phone 1210-W.

Dixon, A. A.—Asso. Prof. of Physics. 208 Physics Bldg.
14 Dixie Trail. Phone 1348-J.

Dixon, Fred—Reporter, News Bureau. 111 Ricks Hall.
17 Enterprise Street. Phone 3860.

Doak, C. G.—Physical Education Dept. Gymnasium.
130 Woodburn Road. Phone 1188-M.

Eastabrook, Miss Helen—Extension Spec. in House Furnishings and Home Mgt. 313 Ricks Hall.
221 Hawthorne Road. Phone 846-R.

Eden, John R.—Capt. Inf., D. O. L., Asst. P. M. S. & T. Holladay Hall.
2100 Fairview Rd. Phone 1714-R.

Edgerton, Miss Agnes—Stenographer, Treasurer's Office. Holladay Hall.
625 W. Jones Street. Phone 949-M.

Evans, H. C.—Auditor, Agricultural Extension Service. 111 Ricks Hall.
1621 Park Drive. Phone 909-W.

Farnham, F. R.—Extension Dairyman. 113 Polk Hall.
State College Station.

Fenner, Miss Lillian—Dietitian. Dining Hall.
11 Enterprise Street. Phone 1304.

Ferguson, B. Troy—District Agent, Agricultural Extension. 101 Ricks Hall.
White Oak Road. Phone 3526-J.

Ferguson, J. C.—Instructor, Mech. Eng. Foundry.
5 College Court Apt. Phone 3875.

Fisher, H. A.—Prof. of Mathematics. 207 Page Hall.
125 Brooks Ave. Phone 3663-J.

Floyd, E. Y.—Agronomist in Soil Fertility. Patterson Hall.
125 Glenwood Ave. Phone 2349-W.

Fontaine, James—Instructor in Math. and Research Asst. in Eng. Experiment Station. 122 C. E. Bldg.
2712 Everett Ave. Phone 3251-XW.

Forster, G. W.—Head Department of Agr. Economics. 114 Ricks Hall.
1924 Sunset Drive. Phone 3509-R.

Fort, Miss Mary—Sec. to Roy H. Thomas, Dept. of Ed. 308 Ricks Hall.
315 N. Boundary St. Phone 946-R.

Fort, Miss Nellie—Secretary and Clerk, Animal Industry Dept. 215 Polk.
315 N. Boundary Street. Phone 946-R.

Foster, John E.—Asst. in An. Husbandry Investigations. 217 Polk Hall.
2716 Everett Ave. Phone 3251-J.

Foster, John M.—Asso. Prof. Aero. Engineering. 104 Page Hall.
5 Hope Street. Phone 2407-W.

Fountain, A. M.—Asst. Prof. English. 101 Pullen Hall.
2 Hope Street. Phone 1920-R.

Fouraker, Raymond S.—Prof. of E. E. 102 Elec. Eng. Bldg.
2701 Clark Ave. Phone 3251-R.

Fowler, Mrs. Betty H.—Schedule Clerk. Holladay Hall.
411 Oakwood Ave. Phone 2421.

Frierson, Cynthia—Asst. Registrar. Holladay Hall.
2100 Hillsboro St. Phone 1862-W.

Fulton, B. B.—Research Entomologist, Zoöl. and Entom. 208 Zoöl. Bldg.
2302 Clark Ave. Phone 1099-W.

Gaither, E. W.—District Agent, Agricultural Extension. 101 Ricks Hall.
Western Boulevard. Phone 53-F-03.

Gardner, M. E.—Pomologist, Horticulture Dept. 307 Polk Hall.
2308 Bedford Ave. Phone 4468-R.

Garren, G. M.—Agronomist in Small Grain. Patterson Hall.
15 W. Lenoir Street. Phone 942-J.

Garrison, K. C.—Prof. of Psychol. 3 Holladay Hall.
123 Chamberlain St. Phone 3933-W.

Geile, W. G.—Assoc. Prof. of Civil and Constr. Eng. 208 C. E. Bldg.
106 Logan Court. Phone 4048.

Gilbert, Miss Clara L.—Stenog. Dept. of Agr. Economics. 114 Ricks Hall.
303 Hillcrest Rd. Phone 2119-M.

Glenn, Karl B.—Asst. Prof. of E. E. 104 E. E. Bldg.
309 N. Bloodworth St. Phone 995-W.

Goehring, E. E.—Asst. Prof., Business Administration. 203 Peele Hall.
206 E. Park Drive. Phone 1225-J.

Goodman, Jno. W., Jr.—District Agent, Agr. Extension. 101 Ricks Hall.
2113 Woodland Ave. Phone 3381-J.

Gorrell, Miss Virginia—Stenographer, Registrar's Office. Holladay Hall.
Wake Forest, N. C. Phone 45 Wake Forest.

Graeber, R. W.—Extension Forester. 305 Ricks Hall.
123 Woodburn Rd. Phone 2060-W.

Grant, M. C.—College Plumber. Warehouse.
College Campus. Box 5243. Phone 3756.

Gray, Miss Dorothy—Catalog Librarian. Library.
1621 Park Drive. Phone 909-W.
Greaves, R. E.—Asst. Prof., Poultry Dept. 317 Ricks Hall.
2512 Clark Ave. Phone 1876.
Greaves-Walker, A. F.—Prof. of Ceramic Engineering. Ceramic Bldg.
305 Forest Rd. Phone 1823-J.
Green, R. W.—Asso. Prof. of Business Administration. 107 Peele Hall.
White Oak Drive. Phone 3638-W.
Greene, Miss Minda—Stenographer, Science and Business. 104 Peele Hall.
125½ Woodburn Rd. Phone 2132-W.
Grimes, Geo. J.—Asst. Lab. Instr., Ceramic Dept. Ceramic Bldg.
2220 Hillsboro Street.
Grimshaw, A. H.—Asso. Prof. of Textiles. Tompkins Hall.
12 Enterprise Street.
Grinnels, C. D.—Asso. Prof. Dairy Husbandry Dept. 214 Polk Hall.
409 Dixie Trail. Phone 3848-W.
Grove, C. S., Jr.—Asst. Prof. Chem. Eng. 112 Winston Hall.
2509 Vanderbilt Ave. Phone 963-R.
Haig, Fred M.—Asst. Prof. of Animal Husbandry and Dairying. 114 Polk Hall.
1803 Fairview Rd. Phone 1235-W.
Halverson, J. O.—In charge Animal Nutrition Investigation. 315 Polk Hall.
2813 Mayview Rd. Phone 3661-M.
Hamilton, C. H.—Asso. Prof. Rural Sociology. 119 Ricks Hall.
220 Chamberlain Street. Phone 3809-R.
Hardin, D. B.—Asst. Prof. Knitting and Designing. Textile Bldg.
407 Chamberlain St. Phone 4230-J. Box 5323.
Harrill, L. R.—Club Leader, Agr. Extension Service. 107 Ricks Hall.
1626 W. Park Drive. Phone 1257-W.
Harris, L. H.—Steward, Boarding Dept. Dining Hall.
Dining Hall Bldg. Phone 2568.
Harris, R. J.—Supt. Experiment Station Farm.
Western Boulevard. Phone 3250-R.
Harris, Mrs. R. J.—Teller, Treasurer's Office. 105 Holladay Hall.
Western Boulevard. Phone 3250-R.
Harrison, T. P.—Professor of English. 102 Pullen Hall.
1800 Park Drive. Phone 3441-W.
Hart, T. R.—Asso. Prof. Textile Dept. Textile Bldg.
501 W. Whitaker Mill Rd. Phone 4112-J.
Hayes, Ralph W.—Prof. of Forestry. 303 Ricks Hall.
2115 Country Club Drive. Phone 4752-J.
Heck, C. M.—Prof. of Physics. 112 Phys. Bldg.
200 Hawthorne Rd. Phone 2230-J.
Henson, Mrs. Ruth S.—Bookkeeper, Treasurer's Office. 105 Holladay Hall.
511 Oakwood Ave. Phone 890-W.
Hicks, W. N.—Asst. Prof. Sociology and Religion. 204 Peele Hall.
125 Chamberlain Street.

Hilton, J. T.—Asso. Prof. Textiles. Tompkins Hall.
1610 Ambleside Drive. Phone 1065-W.
Hinkle, L. E.—Prof. Modern Languages. 205 Peele Hall.
1714 Park Drive. Phone 953-J.
Hofmann, J. V.—Head of Forestry Dept. 301 Ricks Hall.
904 New Bern Ave. Phone 3506-W.
Horton, Geo.—Instr. Zoöl. and Entomology. 202 Zoöl. Bldg.
115 Chamberlain St. Phone 1923.
Hostetler, Earl H.—Prof. of Animal Husbandry. 215 Polk Hall.
White Oak Rd. Phone 2362-J.
Hudgins, Miss Madge M.—Stenographer. Agronomy Dept. 24 Patterson Hall.
117 N. Bloodworth St. Phone 729-W.
Hudson, C. R.—State Agent, Agr. Extension Service. 109 Ricks Hall.
604 Oakwood Ave. Phone 1010-XR.
Hughes, Miss Katherine—Stenographer, Agronomy Dept. 19 Patterson Hall.
1307 Hillsboro St. Phone 2707-R.
Hunt, Miss Elizabeth—Clerk, Registrar's Office. 202 Holladay Hall.
612 W. Lane St. Phone 4240.
Hunter, Miss Willie N.—Extension Specialist in Clothing. 311 Ricks Hall.
1804 Hillsboro St. Phone 352.
Hutchinson, H. H.—Clerk, Treasurer's Office. 105 Holladay Hall.
7 Enterprise Street. Phone 905-M.
Jenkins, Mrs. Berry G.—Stenographer, Civil Eng. Dept. 210 C. E. Bldg.
2512 Stafford Ave. Phone 1386.
Jeter, Frank H.—Agr. Editor, College News Bureau. 113-117 Ricks Hall.
304 Forest Drive. Phone 2633-W.
Jones, A. D.—Asst. Prof. Chemistry. 106 Winston Hall.
111 Chamberlain St.
Jones, Ivan D.—Horticultural Physiologist. Greenhouse.
1508 Bennehan St. Phone 2730-R.
Jones, Miss Margaret—Stenographer, Poultry Dept. 216 Ricks Hall.
2512 Clark Ave. Phone 3763-W.
Jordan, W. E.—Asso. Prof. of Chemistry. 207 Winston Hall.
902 Brooks Ave. Phone 1540-W.
Judd, Mrs. Lilly B.—Stenographer, Agr. Extension and Experiment Station.
104 Ricks Hall.
309 E. Morgan St. Phone 4512-W.
Jurney, W. H.—Instructor in Mathematics. 101 C. E. Bldg.
712 Brooks Ave. Phone 1540-R
Keeble, C. G.—Instructor of English. 4 Pullen Hall.
501 N. Blount St. Phone 273-J.
Keever, L. M.—Asst. Prof. E. E. 106 E. E. Bldg.
2200 Carroll Drive. Phone 2912-M.
Keith, Miss Glennie C.—Sec. to Dean of Students. 111 Holladay Hall.
610 Willard Place. Phone 2294.
Kelly, J. W.—Teaching Fellow, Poultry Dept. 213 Ricks Hall.
4 Maiden Lane. Phone 65.
Kelly, W. J.—News Reporter, News Bureau. 111 Ricks Hall.
5 College Court Apts. Phone 3875.

Kime, P. H.—Plant Breeding Agronomist. Patterson Hall.
728 W. Cabarrus St. Phone 1460-J.

Kimrey, A. C.—Extension Dairyman. 117 Polk Hall.
522 Oakwood Ave. Phone 1048-J.

King, E. S.—Secretary of Y. M. C. A.
121 Chamberlain St. Phone 1289-W.

King, Miss Nora L.—Secretary to the President. Holladay Hall.
205 Woodburn Rd. Phone 1669.

Kirk, R. C.—Teaching Fellow E. E. Dept. A.-E. E. Bldg.
1306 Jackson Street.

Knapp, Joseph G.—Asso. Agr. Economist. 114 Ricks Hall.
306 Chamberlain St. Phone 3156-W.

Kolb, Robert P.—Asst. Prof. M. E. 104 Page Hall.
2264 Circle Drive. Phone 1707-R.

Ladu, Arthur I.—Asso. Prof. English. 105 Pullen Hall.
A-3 Wilmont Apts. Phone 3233-W.

Lancaster, F. W.—Asst. Prof. Physics. 206 Physics Bldg.
208 Forest Rd. Phone 2182.

Lawrence, J. B.—Asst. Coach. 2 Gymnasium.
Raleigh Hotel. Phone 2733.

Leager, Marc C.—Asso. Prof. Business Administration. 105 Peele Hall.
1708 Park Drive. Phone 2848-W.

Lee, F. A., Jr.—Asst. Prof. Mathematics. 205 Page Hall.
224 Woodburn Rd. Phone 1237.

Leighton, Henry P.—Asst. Instructor Military. Holladay Basement.
1312 Hinton St.

Lefler, Hugh T.—Asso. Prof. History. 5 Pullen Hall.
23 Logan Court. Phone 4529.

LeFort, C. R.—Office of Dean of Students. Holladay Hall.
2302 Hillsboro St. Phone 552.

Lehman, S. G.—Prof. of Plant Pathology, Botany Dept. 32 Patterson Hall.
123 Brooks Ave. Phone 2235-J.

Lewis, R. A.—Mgr. College Cafeteria. Dining Hall Bldg.
115 Woodburn Rd. Phone 1379-R.

Lutz, J. F. Asst. Prof. Soils. 18 Patterson Hall.
1507 Hillsboro St. Phone 681-W.

McCrary, O. F.—District Agent, Agr. Extension Service. 101 Ricks Hall.
1029 W. South St. Phone 2810-J.

McIntyre, Mrs. F. McP.—Secretary, Chemistry Dept. 219 Winston Hall.
4 Maiden Lane. Phone 65.

McKimmon, Mrs. Jane S.—State Home Demonstration Agent and Asst. Director of Extension. 201 Ricks Hall.
Mansion Park Hotel. Phone 512.

McKimmon, Mrs. Katherine—Stenographer, Agronomy Dept. 19 Patterson Hall.
122 Park Ave. Phone 1037-W.

McLean, Miss Grayce—Clerk and Stenographer, Treasurer's Office. Holladay Hall.
610 Willard Place. Phone 2294.

McLean, Miss Susie—Stenographer, Agr. Extension Service. 108 Ricks Hall.
1827 Glenwood Ave. Phone 3365.

Magruder, Col. Bruce—P. M. S. and T., Head of Dept. Basement Holladay.
1600 St. Mary's St. Phone 2794-J.

Mann, C. L.—Prof. and Head of C. E. Dept. 211 C. E. Bldg.
1702 Hillsboro St. Phone 929-M.

Mann, H. B.—Agronomist in Soil Fertility. Patterson Hall.
2708 Vanderbilt Ave. Phone 707-R.

Marshall, R. P.—Asst. Prof. of English. 2 Pullen Hall.
215 Hillcrest St. Phone 3385-M.

Mason, Miss Eleanor H.—Stenographer. Home Demonstration Div. 201 Ricks Hall.
128 N. Wilmington St. Phone 606.

Maupin, C. J.—Asst. Ext. Poultryman. 315 Ricks Hall.
327 W. Morgan St. Phone 2275.

Mayer, W. L.—Prof. of Ed., Director of Registration. 206 Holladay Hall.
20 Bagwell Ave. Phone 3758-J.

Maynard, Mrs. M. B.—Secretary, School of Education. Holladay Hall.
220 Chamberlain St. Phone 3809-M.

Meacham, F. B.—Asst. Prof. Zoöl. and Entomology. 106 Zoöl. Bldg.
2716 Everett Ave. Phone 3251-J.

Meares, J. S.—Asst. Prof. of Physics. 206 Physics Bldg.
2408 Everett Ave. Phone 936-W.

Meekins, E. N.—Dist. Supervisor of Agr. Ed. 308 Ricks Hall.
Cary, N. C.

Metcalf, Z. P.—Prof. of Zoöl. and Director of Instruction, School of Agriculture. 102 Zoölogy Bldg.
315 Forest Rd. Phone 833-W.

Middleton, G. K.—Seed Specialist, N. C. Crop Imp. Assn. 291½ Patterson Hall.
911 Brooks Ave. Phone 1540-J.

Miller, J. F.—Prof. of Physical Education. 3 Gymnasium.
191 Chamberlain St. Phone 1550.

Miller, Mrs. R. S.—Stenog. Agr. Ext. 104 Ricks Hall.
311 Calvin Rd. Phone 1116.

Mitchell, T. B.—Asso. Prof. Zoöl. and Entomology. 209 Zoöl. Bldg.
123 Newbern Ave. Phone 2222.

Mock, H. L.—Asst. Prof. of Mathematics. 207 Page Hall.
1609 Park Drive. Phone 2758-J.

Moen, R. O.—Prof. of Business Administration. 107 Peele Hall.
3202 Clark Ave. Phone 3264-J.

Moore, Joe E.—Instructor in Ed. and Bus. and Science. Holladay Hall.
101 Chamberlain St.

Moore, J. H.—Cotton Technologist, Agronomy Dept. Patterson Hall.
2708 Bedford Ave. Phone 4468-M.

Moore, Mrs. J. L.—Sec. A. H. Dept. 115 Polk Hall.
34 Shepherd St. Phone 3781-W.

Morris, Mrs. Cornelia C.—District Home Demonstration Agent. 202 Ricks Hall.
Woman's Club. Phone 2689-W.

Morris, W. F.—Asst. Prof. Mech. Engr. 308 Page Hall.
Clayton, N. C.

Morrow, E. B.—Extension Horticulturist. 302 Polk Hall.
14 Enterprise St. Phone 4197-W.

Mott, T. A., Jr.—Teaching Fellow, Textile School. Tompkins Hall.
130 Forest Rd. Phone 4567.

Mumford, C. G.—Asst. Prof. Mathematics. 205 Page Hall.
712 Brooks Ave. Phone 1540-R.

Nance, R. E.—Asst. Prof. Animal Husbandry. 218 Polk Hall.
Garner Rd. Phone 1526-W.

Nelson, Dr. Thomas—Dean of Textile School. Tompkins Hall.
16 Enterprise St. Phone 4197-J.

Newman, Mrs. L. S.—Stenographer, Forestry Dept. 301 Ricks Hall.
213 S. McDowell St. Phone 2056-W.

Newton, Miss Foy—Stenographer, Agr. Extension Service. 101 Ricks Hall.
319 Newbern Ave. Phone 1171-M.

Niswonger, H. R.—Extension Horticulturist. 302 Polk Hall.
308 Forest Rd. Phone 2684-W.

O'Donnell, Dorothy—Stenographer, Treasurer's Office. Holladay Hall.
714 W. Morgan St. Phone 1391.

Ogg, J. A.—Instructor, Chemistry Dept. 107 Winston Hall.
5 Pogue St. Phone 4560-W.

Oman, A. E.—Leader Rodent Control Work. 5 Ricks Hall.
1701 Dare St.

Paget, Edwin H.—Asso. Prof. of English. 109 Pullen Hall.
114 Park Ave. Phone 3098-J.

Paramore, L. R.—Asst. in Farm Mgt. Ricks Hall.
106 Horne St. Phone 707-M.

Park, C. B.—Instructor and Supt. of Shops. Shops Bldg.
125 Hawthorne Rd. Phone 678-M.

Parrish, C. F.—In Charge of Poultry Extension. 315 Ricks Hall.
2820 Fairground Ave. Phone 4063-J.

Paulson, J. D.—Asst. Prof. Architectural Engineering. 315 E. E. Bldg.
2705 Everett Ave.

Pearsall, R. J.—Asst. Prof. E. E. 106 E. E. Bldg.
2619 Leesville Rd.

Phelps, W. R.—Storeroom clerk. Warehouse.
217½ N. Bloodworth St. Phone 4334-R.

Phillips, L. B.—Multigraph Operator and Mailing Clerk. 113 Ricks Hall.
College Court Apt. No. 5. Phone 3875.

Pierce, Mrs. C. E.—Stenographer, Zoöl. and Entomology. 101 Zoöl. Bldg.
2412 Everett Ave. Phone 982-R.

Piland, J. Rodney—Asst. Chemist, Agronomy Dept. 15 Patterson Hall.
402 Horne St.

Pillsbury, J. P.—Prof. and Landscape Architect. 301 Polk Hall.
2715 Hillsboro St. Phone 1210-J.

Poole, Edwin R.—Asst. Grader, English Dept. 8 Pullen Hall.
508 S. West St. Phone 1054-M.

Poole, R. F.—Prof. of Plant Pathology, Botany Dept. 44 Patterson Hall.
1 Hope St. Phone 1920-J.
Pope, Miss Sophie L.—Stenog. Library and College Extension Div. Library.
310 Vance Apt. Phone 2509-W.
Price, P. W.—Director of Music. Gymnasium.
404 Oakwood Ave. Phone 3305-W.
Rand, Miss Sarah—Nurse, Infirmary. Phone 687.
Randall, G. O.—Asso. Prof. of Horticulture. 305 Polk Hall.
2706 Everett Ave.
Randolph, E. E.—Prof. of Chemical Engineering. 112 Winston Hall.
212 Groveland Ave. Phone 2882-W.
Rankin, W. H.—Agronomist. Patterson Hall.
402 Horne St. Phone 4517-M.
Reese, Frank R.—Asst. Football Coach. Gymnasium.
1812 W. Park Drive. Phone 4153.
Reid, W. A.—Instructor in Chemistry. 203 Winston Hall.
2004 Hillsboro St. Phone 935-J.
Ricamore, Capt. P. W.—Asst. P. M. S. and T. 14 Holladay Hall.
512 Graham St. Phone 2746-J.
Riddick, Dr. W. C.—Dean of Engr. School. 105 Page Hall.
225 Woodburn Rd. Phone 1456-M.
Riddle, A. A.—Chief Engineer. Power Plant.
2708 Bedford Ave. Phone 4468-W.
Rogers, R. H.—Asso. Agr. Economist. 120 Ricks Hall.
2820 Bedford Ave. Phone 4469-J.
Rowe, Miss Beatrice—Stenographer, Athletic Dept. 1 Gymnasium.
20 Maiden Lane. Phone 2436-W.
Rowland, M. R.—Instructor in Mechanical Engr. Shop Bldg.
5 College Court Apt. Phone 3875.
Ruffner, R. H.—Prof. of A. H. and Dairying. 115 Polk Hall.
1910 Park Drive. Phone 3679-J.
Ruggles, Edward W.—Asst. Dir. College Ext. Div. Library.
2411 Everett Ave. Phone 982-M.
Salter, Mrs. Dariel W. (L. C.)—Clerk, Registrar's Office. 206 Holladay Hall.
495 S. Boylan Ave. Phone 2184-W.
Sams, C. L.—Extension Apiarist, Dept. of Zoöl. and Entom. 104 Zoöl. Bldg.
2616 Clark Ave. Phone 1705.
Satterfield, G. H.—Asso. Prof. Biochemistry. 111 Winston Hall.
407 W. Park Drive. Phone 4126-R.
Satterfield, H. E.—Asso. Prof. of M. E. 106 Page Hall.
201 Groveland Ave. Phone 2455.
Schaub, I. O.—Dean of School of Agr. and Director of Extension. 104 Ricks Hall.
Western Boulevard. Phone 53-F-23.
Schmidt, Robert—Vegetable Specialist, Horticultural Dept. 307 Polk Hall.
516 Daughtridge St. Phone 867-J.
Seawell, Miss Elizabeth—Stenographer, Home Demonstration Dept. Ricks Hall.
Wake Forest, N. C.

Sermon, R. R.—Athletic Director. 1 Gymnasium.
113 Brooks Ave. Phone 1161.
Shanklin, J. A.—Cotton Investigator. Ricks Hall.
504 N. Blount St. Phone 1169-M.
Shaw, H. B.—Prof. Industrial Engineering. 120 C. E. Bldg.
1507 Ambleside Drive. Phone 1706-J.
Shay, W. W.—Swine Specialist, Animal Industry Div. 201 Polk Hall.
16 Dixie Trail. Phone 1348-M.
Sheffield, C. A.—Asst. to Director, Agr. Ext. Service. 108 Ricks Hall.
709 West Aycock St. Phone 3726-M.
Shepherd, M. L.—Dir. of Self Help Bureau and Asso. Secretary of Y. M. C. A.
Y. M. C. A. Phone 558.
Sherwood, F. W.—Asso. Prof. Anim. Nutrition Investigation. 317 Polk Hall.
121 N. Bloodworth St. Phone 2399-J.
Showalter, Merle F.—Asso. Prof. of Education. Holladay Hall.
406 Brooks Ave. Phone 614.
Shulenberger, C. B.—Asso. Prof. of Accounting. 115 Peele Hall.
210 Ashe Ave. Phone 2765-J.
Shumaker, Ross—Prof. of Architecture. 315 Physics Bldg.
618 Brooks Ave. Phone 3661-W.
Shunk, Ivan V.—Asso. Prof. of Botany. 39 Patterson Hall.
1809 Park Drive. Phone 1158-J.
Slocum, Geo. K.—Teaching Fellow, Forestry Dept. 303 Ricks Hall.
10 E. Dixie Drive.
Smith, Mrs. Annie—Telephone Operator. Winston Hall.
2316 Hillsboro St. Phone 2632-M.
Smith, Mrs. Estelle T.—Dist. Home Demonstration Agent. 206 Ricks Hall.
128 E. Edenton St. Phone 3556-J.
Smith, Frank H.—Asst. Animal Nutrition. 316 Polk Hall.
1718 Hillsboro St. Phone 1027-J.
Smith, Glen R.—Field Ag. Cotton Mktg. 120 Ricks Hall.
303 Hillcrest Rd. Phone 2119-M.
Smith, John P. (Clipper)—Head Football Coach. Gymnasium.
Sir Walter Hotel. Phone 2600.
Smith, Miss Pauline—Dist. Home Demonstration Agent. Ricks Hall.
214 New Bern Ave. Phone 1333.
Steele, Miss Loetitia—Mail Clerk, Purchasing Dept. Holladay Hall.
2512 Stafford Ave. Phone 1386.
Steele, Miss Nancy H.—Secretary to Alumni Office. Holladay Hall.
2512 Stafford Ave. Phone 1386.
Stucky, Dr. J. L. Prof. of Geology. Primrose Hall.
1911 Sunset Drive. Phone 3366-W.
Sumner, Mrs. Baye—Purchase Order Clerk. Holladay Hall.
14 Cameron Park Apts.
Taylor, O. B.—Game Mgt. (Prof.) 202-A Zoöl. Bldg.
115 Chamberlain St. Phone 1923.
Thomas, D. B.—Teaching Fellow, Math. Dept. 8 Physics Bldg.
2302 Hillsboro St. Phone 552.

Thomas, Horace C.—Instructor and Storekeeper, Military Dept. Gymnasium.
Powell Drive, Sunset Terrace, Western Blvd.
Thomas, Miss Mary E.—Extension Nutritionist. 314 Ricks Hall.
221 Hawthorne Rd. Phone 846-R.
Thomas, Roy H.—State Supervisor of Agr. Ed. 308 Ricks Hall.
225 Furches St. Phone 1336-J.
Thompson, Miss Daisy W.—Clerk, Treasurer's Office. 105 Holladay Hall.
1117 Hillsboro St. Phone 3673.
Thorson, Truman C.—Asst. P. M. S. and T., Military Dept. Holladay Hall.
109 Chamberlain St. Phone 4117.
Todd, Miss Lois—Stenographer, Chemical Engr. Dept. 112 Winston Hall.
124 N. Harrington St. Phone 836-J.
Tucker, Harry—Prof. Highway Engineering. 209 C. E. Bldg.
20 Logan Court. Phone 609-W.
Turner, Frank B.—Instructor, Mechanical Engineering. 206 Page Hall.
2404 Everett Ave. Phone 936-J.
Vaughan, Lillian L.—Prof. of Mechanical Engineering. 109 Page Hall.
11 Enterprise St. Phone 1304.
Venable, Capt. Ben W.—Asst. P. M. S. and T. 12 Holladay Hall.
2260 Circle Drive. Phone 2063-R.
Warren, R. S.—Freshman Coach. Gymnasium.
222 Chamberlain St. Phone 2375-J.
Weathers, Miss Beulah—Stenog. Botany Dept. 37 Patterson Hall.
112 N. Wilmington St. Phone 1166.
Weaver, D. S.—Prof. Agr. Engineering. 29 Patterson Hall.
520 Daughtridge St. Phone 867-R.
Weaver, J. G.—Asst. Prof. of Horticulture and Foreman of Farm. Greenhouse.
707 N. East St.
Wellons, T. T.—Supt. of Dormitories. Warehouse.
34 Shepherd St. Phone 3781-W.
Wells, B. W.—Prof. and Head of Dept. of Botany. 34 Patterson Hall.
1605 Park Drive. Phone 2758-W.
Wheeler, Fred B.—Asst. Prof. in M. E. Shop.
20 Maiden Lane. Phone 2436-W.
White, Miss Katherine—Stenographer, Ceramic Dept. Ceramic Bldg.
118 Forest Rd. Phone 2108-W.
Whitener, Mrs. Jeanie S.—Chief Clerk and Stenographer, Div. of Publications.
113 Ricks Hall.
1202 Cowper Drive. Phone 2058-W.
Whitener, John Summie—Asso. Prof. of Sanitary Engr. 202 C. E. Bldg.
1202 Cowper Drive. Phone 2058-W.
Whitford, L. A.—Asst. Prof. of Botany. 39 Patterson Hall.
12 Otis St.
Williams, C. B.—Head of Agronomy Dept. 19 Patterson Hall.
1405 Hillsboro St. Phone 758-J.
Williams, C. F.—Asso. Horticulturist. Greenhouse.
2711 Everett Ave. Phone 845-M.
Williams, H. Page—Asst. Prof. of Math. 101 C. E. Bldg.
2512 Clark Ave. Phone 3210.

Williams, L. F.—Prof. of Organic Chemistry. 201 Winston Hall.
1816 Park Drive. Phone 1212-J.
Williams, Miss Lucie R.—Stock Keeper, Chemistry Dept. 209 Winston Hall.
10 N. Boylan Ave.
Williams, N. W.—Asst. Prof. of Poultry. 214 Ricks Hall.
Poultry Plant. Phone 1383.
Williamson, Mrs. Charlotte M.—Asst. Librarian. Library.
530 N. Person St. Phone 541-W.
Willis, L. G.—Soil Chemist, Agronomy Dept. Patterson Hall.
2702 Fairview Rd. Phone 1373-R.
Wills, Geo. A.—Teaching Fellow in Ceramic Engr. Dept. Ceramic Bldg.
120 Woodburn Rd.
Wilson, A. J.—Chairman, Dept. of Chemistry. 221 Winston Hall.
1808 Park Drive. Phone 1072-W.
Wilson, T. L.—Asst. Prof. of English. 1 Pullen Hall.
407 Calvin Rd. Phone 1046-W.
Winston, S. R.—Prof. of Sociology. 202 Peele Hall.
120 Forest Rd. Phone 2974.
Winters, R. Y.—Director, Agr. Experiment Station. 104 Ricks Hall.
1908 Park Drive. Phone 1158-W.
Woodruff, Miss Myra deHaven—Asso. in Home Econ. Research. 204 Ricks Hall.
407 N. Blount St. Phone 2610-W.
Wooten, Louis E.—Asso. Prof. Civil Engr. 207 C. E. Bldg.
311 W. Park Drive. Phone 2939.
Wright, J. B.—College Electrician. Warehouse.
15 Rosemary St. Phone 3255-W.
Wynn, Willard K.—Asso. Prof. of English. Pullen Hall.
502 Dixie Trail.
Yates, R. E. L.—Prof. of Mathematics. 205 Page Hall.
2100 Hillsboro St. Phone 1862-W.
Yeargan, Sherman A.—Asst. Grader, English Dept. 8 Pullen Hall.
Garner, N. C.
Young, Miss Emily—Secretary, Home Demonstration Dept. 201 Ricks Hall.
515 Polk St. Phone 1889-J.
Young, Mrs. Pattie Pace—Stenographer, A. H. Dept. 202 Polk Hall.
125½ Woodburn Rd. Phone 2132-W.

Standing Committees of the Faculty for the College Year, 1932-1933

COMMITTEE ON COURSE OF STUDY

Z. P. Metcalf, Chairman
Thomas Nelson
B. F. Brown
H. B. Shaw
T. E. Browne
W. L. Mayer

COMMITTEE ON CATALOG

H. B. Shaw, Chairman
M. F. Showalter
T. P. Harrison
W. B. Cobb

COMMITTEE ON COLLEGE EXTENSION

Frank Capps, Chairman
Karl C. Garrison

A. I. Ladu
R. S. Dearstyne
H. T. Lefler
E. W. Boshart
A. F. Greaves-Walker

COMMITTEE ON ATHLETICS

A. J. Wilson, Chairman
E. L. Cloyd
J. F. Miller
Thomas Nelson
I. O. Schaub
L. E. Wooten
R. R. Sermon
J. S. Whitener

COMMITTEE ON PUBLIC RELATIONS AND ENTERTAINMENT

Z. P. Metcalf, Chairman
Bruce Magruder
F. H. Jeter
R. R. Sermon
L. Polk Denmark

COMMITTEE ON LIBRARY

H. T. Lefler, Chairman
Frank Capps
J. D. Clark
G. H. Satterfield
Karl C. Garrison
J. B. Cotner
R. S. Fouraker

COMMITTEE ON COMMENCEMENT

T. P. Harrison, Chairman
C. L. Mann
P. W. Price
E. H. Paget
J. D. Paulson
G. O. Randall

COMMITTEE ON GRADUATE INSTRUCTION

R. F. Poole, Chairman
L. E. Cook
C. L. Mann
C. B. Shulenberger
T. R. Hart
W. L. Mayer

COMMITTEE ON HONORARY DEGREES

W. C. Riddick, Chairman
S. R. Winston
A. H. Grimshaw
G. W. Forster
L. E. Cook

COMMITTEE ON SOCIAL FUNCTIONS

E. L. Cloyd, Chairman
J. M. Foster
F. M. Haig
Thos. Nelson
J. V. Hofmann

ADVISORY COMMITTEE TO FRATERNITIES

W. N. Hicks, Chairman
J. M. Foster
Harry Tucker
M. C. Leager
R. W. Hayes

COMMITTEE ON REFUND OF FEES

Harry Tucker, Chairman
R. H. Ruffner
C. M. Heck

FACULTY ADVISORY COMMITTEE TO STUDENT GOVERNMENT

J. D. Clark, Chairman
C. B. Shulenberger
F. A. Lee

THE STUDENT PUBLICATIONS BOARD

F. H. Jeter, Chairman
W. L. Mayer
Editors of the Agromeck, Technician, and Wataugan

COMMITTEE OF COMMENCEMENT

T. P. Harrison, Chairman
C. L. Mann
P. W. Price
E. H. Paget
J. D. Paulson
G. O. Randall

INSERT FOLDOUT HERE

Student Directory

Name	*Classification*	*College Address*	*Home Address*
Abercrombie, Joseph H.	Fr. Land. A.	106 4th, Box 3116, R. 4	Montgomery, Ala.
Abernethy, Joseph F.	So. E. E.	117 1911, Box 3717	Gastonia, N. C.
Abernethy, J. P.	Jr. B. Ad.	304 6th, Box 3264	Stanley, N. C.
Abernethy, Theodore F.	So. Chem. E.	117 1911, Box 3717	Gastonia, N. C.
Adams, G. A.	Irr. Fr. A. H.	114 South, Box 3514	Shelby, N. C.
Adams, John C.	Sr. Tex. Mfg.	104 Wat., Box 3004	Gibson, N. C.
Adams, J. H.	So. Chem.	2702 Hillsboro St.	Dunlap, N. C.
Adams, Thos. N., Jr.	So. E. E.	At home. 512 E. Hargett	Raleigh, N. C.
Adams, Wilson	Sr. Tex. Mfg.	206 1911. Box 3746	McColl, S. C.
Adams, Wm. E.	Jr. A. H.	217 Wat.. Box 3035	Dunlap, N. C.
Adman, Andrew G.	Jr. For.	12 Enterprise St.	Aliquippa, Pa.
Aiken, W. C.	Fr. For.	232 South. Box 3564	Asheville, N. C.
Aiken, Wm. M.	Fr. B. Ad.	205 6th. Box 3253	Erwin, N. C.
Alcorn, J. R.	Sr. C. E.	223 1911, Box 3763	Ruffin, N. C.
Aldridge, J. R.	Fr. Agr. Sp.	110 1911, Box 3710	Haw River, N. C.
Alexander, Sam Davidson	So. Agr. Sp.	319 1911, Box 3799	Swannanoa, N. C.
Allen, Jo. F.	Grad. Chem.	At home, 2609 Clark	Raleigh, N. C.
Allen, Jno. S.	Fr. For.	301 South, Box 3565	N. Wilkesboro, N. C.
Allen, L. S.	Sr. Agr.	220 Chamberlain St.	Oriental, N. C.
Allen, Thos. W.	Fr. Chem. E.	130 Forest Rd.	Louisburg, N. C.
Allen, Wm. Paul	Fr. S&B	107 Wat., Box 3007	Raleigh, N. C.
Ambrose, Geo. W.	Fr. E. E.	217 1911, Box 3757	Jacksonville, N. C.
Ames, L. Thomas	Fr. B. Ad.	323 7th, Box 3389	New Bedford, Mass.
Anderson, Carleton T.	Sr. Tex. C&D	203 Wat., Box 5001	Norfolk, Va.
Anderson, Elliot F.	Jr. Tex. Chem.	209 7th, Box 3341	Pontiac, R. I.
Andreoni, Adolph A.	Fr. Educ.	132 7th, Box 3332	Spring Valley, Ill.
Andrews, Ernest M.	Fr. Tex.	103 Wat., Box 3003	High Point, N. C.
Andrews, Leslie Kearns	Fr. For.	12 Enterprise	Mt. Gilead, N. C.
Andrews, Martha	Grad. Educ.	At home, 105 E. North	Raleigh, N. C.
Andrews, Marion L.	Fresh. Ag. Ed.	222 Park Ave.	Parmele, N. C.
Andrews, Wm. G.	Fr. Chem. E.	228 7th, Box 3360	Bethel, N. C.
Angline, Clarence	Jr. Chem. E.	310 5th, Box 3234	Asheville, N. C.
Annetta, Michael I.	Jr. B. Ad.	2702 Hillsboro St.	Palmerton, Pa.
Anthony, R. D.	Sr. M. E.	334 1911, Box 3814	Burlington, N. C.
Arledge, Wm. Rucker	Fr. E. E.	2028 Fairview Rd.	Hendersonville, N. C.
Armfield, C. H.	So. Cer. E.	201 Wat., Box 5233	Albemarle, N. C.
Armour, A. E.	So. M. E.	227 1911, Box 3767	Statesville, N. C.
Arndt, Clarence	Jr. Cer. E.	2004 Hillsboro St.	Plymouth, Wis.
Arthur, Geo. E.	So. For.	201 7th, Box 3333	Sayre, Pa.
Atkins, David W.	Fr. Ag. Ed.	At home	Apex, N. C.
Atkins, Edward G.	Fr. Tex.	15 Maiden Lane	Durham, N. C.
Atkinson, L. G., Jr.	Sr. E. E.	134 1911, Box 3734	Wadesboro, N. C.
Auman, T. C.	Sr. Ag. Spec.	2901 Hillsboro, Box 5424	West End, N. C.
Avant, Wade H., Jr.	Fr. B. Ad.	112 Watauga, Box 3012	Chadbourn, N. C.
Avera, Wm. D., Jr.	Jr. M. E.	8 Maiden Lane	Smithfield, N. C.
Aycock, Chas. B.	Fr. E. E.	At home, 220 E. North	Raleigh, N. C.
Aycock, Jack	Soph. B. Ad.	124 Groveland Ave.	Wilmington, N. C.

Name	*Classification*	*College Address*	*Home Address*
Aycock, W. B.	Fr. Educ.	102 South, Box 3502	Selma, N. C.
Aycock, W. R.	Jr. E. E.	312 1911, Box 3792	Elberon, N. C.
Ayscue, W. H., Jr.	Jr. Chem. E.	2310 Hillsboro St.	Henderson, N. C.
Baerthlein, Wm.	Fr. E. E.	103 South, Box 3503	Pawling, N. Y.
Bagby, Roger C.	Sr. S&B	2230 Hillsboro St.	Winston-Salem, N. C.
Bagby, T. J.	Sr. Mktg.	1717 Park Dr., at home	Raleigh, N. C.
Baggett, Armon E.	Sr. H. S. T.	126 Forest Road	Cooper, N. C.
Bagwell, I. S.	Fr. E. E.	At home, 116 Halifax	Raleigh, N. C.
Bailey, F. H.	Fr. Agr.	At home, Route 4	Raleigh, N. C.
Bailey, J. Allen, Jr.	So. B. Ad.	At home, 555 Newbern	Raleigh, N. C.
Bain, Wm. A., Jr.	Fr. Chem. E.	207 1911, Box 3747	Norfolk, Va.
Baker, John	Fr. Bus.	At home, 211 Poplar St.	Raleigh, N. C.
Baker, J. W.	Fr. Chem.	217 Watauga, Box 3053	Wilmington, N. C.
Baldwin, D. Brooks	Fr. Chem. E.	208 7th, Box 3340	Tabor, N. C.
Ballance, Wilford U., Jr.	So. B. Ad.	115 Forest Road	Currituck, N. C.
Ballard, Lacy H.	Jr. H. S. T.	306 5th, Box 3232	Biscoe, N. C.
Ballentine, Olive T.	Fr. For.	217 South, Box 3549	Varina, N. C.
Banks, H. C.	Grad. Educ.		
Banks, Joseph T.	Grad. M. E.	Power Plant, Box 5325	Raleigh, N. C.
Banner, Wm. P.	Fr. Tex.	202 Watauga, Box 3020	Greensboro, N. C.
Barbee, Gibson V.	Fr. E. E.	228 South, Box 3560	Spring Hope, N. C.
Barber, Arthur, Jr.	Jr. B. Ad.	At home, 2609 Clarke	Raleigh, N. C.
Barber, Mary L.	So. S&B	625 New Bern Ave.	Raleigh, N. C.
Barefoot, J. J.	So. Chem. E.	At home, 9 N. Blount	Raleigh, N. C.
Barefoot, Wm. A.	Fr. B. Ad.	At home, 605 W. North	Raleigh, N. C.
Barker, Paul B.	Fr. E. E.	312 7th, Box 3378	Wilson, N. C.
Barker, W. J.	Jr. For.	117 Woodburn Rd.	Burlington, N. C.
Barnes, D. S.	Jr. E. E.	206 6th, Box 3254	Wilson, N. C.
Barnes, Paul L.	Fr. Chem. E.	203 Chamberlain St.	Winston-Salem, N. C.
Barnes, R. L., Jr.	Sr. B. Ad.	206 6th, Box 3254	Wilson, N. C.
Barnes, W. E.	So. A. E.	At home, 1107 Mordecai	Raleigh, N. C.
Barnhardt, James H.	So. Tex. Mfg.	103 Chamberlain St.	Charlotte, N. C.
Barr, R. W.	Fr. M. E.	331 South, Box 3595	W. Jefferson, N. C.
Bartlett, Grady W.	Sr. H. S. T.	S Ferndell Lane	Swannanoa, N. C.
Basnight, Arvin O.	Fr M. E.	307 5th, Box 3231	Manteo, N. C.
Bass, Beatty Lee	So. Biol.	2004 Clarke Ave.	Scotland Neck N. C.
Bassler, John A.	Fr. E. E.	104 4th, Box 3114	Rockv. Centre, N. Y.
Batts, R. L., Jr.	So. Chem. E.	17 South, Box 3613	Rocky Point, N. C.
Bayless, W. E.	So. B. Ad.	207 Watauga, Box 3025	Murphy, N. C.
Beacham, Hazel	Fr. H. S. T.	At home, 2 Cooper Apt.	Raleigh, N. C.
Beaghen, G. W.	Sr. Ind. Chem.	3 Gym, 1720 Hillsboro	Mt. Vernon, N. Y.
Beam, David E.	Fr. Agr.	107 5th, Box 3107	Shelby, N. C.
Bean, Clarence M.	So. M. E.	204 6th, Box 3252	Thomasville, N. C.
Beatty, W. H.	Sr. H. S. T.	203 4th	Mt. Holly, N. C.
Becton, Wilbur T.	Jr. E. E.	305 6th, Box 3265	Kinston, N. C.
Beddoes, C. W.	Fr. E. E.	At home, 2708 Everett	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Beddoes, F. H.	Fr Geol.	270S Everett Ave.	Raleigh, N. C.
Behney, D. F.	So. Chem. E.	116 Woodburn Rd.	Harrisburg, Pa.
Belgrade, Louis L.	Jr. L. A.	234 7th, Box 3366	New London, Conn.
Belgrade, Max M.	So. Chem. E.	309 7th, Box 3375	New London, Conn.
Bell, Hiram, Jr.	So. C. E.	320 1911, Box 3800	Greensboro, N. C.
Bell, Mary Olive	Sr. H. S. T.	At home. 120S Fillmore	Raleigh, N. C.
Bell, Wm. M., Jr.	Sr. E. E.	210 5th, Box 3222	Charlotte, N. C.
Benbury, Geo. W.	Sr. E. E.	Power Plant, Box 5325	Elizabeth City, N. C.
Bennett, A. C.	Fr. B. Ad.	At home, R. F. D. 4	Raleigh, N. C.
Bennett, Charles C.	So. Agr. Ed.	At home	Apex, N. C.
Bennett, D. E.	Sr. Tex. Mfg.	1710 Hillsboro, Box 5065	Greensboro, N. C.
Bennett, D. W.	Sr. Agr. Ed.	7 South, Box 3603	Cary, N. C.
Bennett, L. A.	Jr. Chem. E.	2513 Clarke Ave.	Garysburg, N. C.
Bennett, Robt. G., Jr.	So. M. E.	2509 Vanderbilt Ave.	Narberth, Pa.
Bennett, R. R.	Jr. Ag. Ed.	201 Hawthorne Rd.	Summerfield, N. C.
Bennett, W. B.	Fr. Aero. E.	117 1911, Box 3717	Hendersonville, N. C.
Benton, H. E.	Jr. Const. E.	2230 Hillsboro St.	Wilson, N. C.
Bernhardt, C. E.	So. Agr. Ed.	1 Gymnasium, Box 5372	Salisbury, N. C.
Berson, Isadore	So. B. Ad.	224 7th, Box 3356	Newark, N. J.
Bethea, Hugh M.	Jr. Ind. Mgt.	1922 Hillsboro St.	Dillon, S. C.
Betts, Thos. A.	So. B. Ad.	1615 Ambleside, at home	Raleigh, N. C.
Biggs, J. C.	Sr. Arch. E.	30S Chamberlin St., Box 5393	Lumberton, N. C.
Bilisoly, J. T.	So. E. E.	At home, 102 Vance Ap.	Raleigh, N. C.
Bishop, Harold F.	So. For.	311 7th, Box 3377	Chambersburg, Pa.
Black, Arthur H.	So. For.	315 7th, Box 3381	Scottdale, Pa.
Blackwood, T. S.	Jr. Tex.	309 Watauga, Box 3045	Cooleemee, N. C.
Blackwood, Walser A.	Jr. Tex.	309 Watauga, Box 3045	Cooleemee, N. C.
Blake, B. C.	So. Chem. E.	1806 Hillsboro St.	Wilmington, N. C.
Blake, James F.	Fr. B. Ad.	101 Wat., Box 3001	Wilmington, N. C.
Blakeney, Jack C.	Sr. For.	21 Enterprise St.	Monroe, N. C.
Blalock, U. Benton, Jr.	Fr. B. Ad.	At home, 1610 St. Mary's St.	Raleigh, N. C.
Bland, T. C.	Fr. Agr.	18 South, Box 3614	Wallace, N. C.
Boddie, Earle D.	Fr. M. E.	113 South, Box 3513	Nashville, N. C.
Bohannon, D. L.	Jr. Cer.	2513 Clarke, Box 5458	Louisville, Ky.
Bolch, L. H.	So. B. Ad.	306 Watauga, Box 3042	Marion, N. C.
Bolen, Jno. C.	Jr. E. E.	202 1911, Box 3742	Charlotte, N. C.
Bolick, Ernest L.	So. Tex.	212 South, Box 3544	Hickory, N. C.
Bolick, H. G.	Sr. L. A.	309 E. Morgan St.	Morganton, N. C.
Booker, W. F., Jr.	So. Chem.	At home, 2604 Hillsboro	Raleigh, N. C.
Boomhour, Elizabeth G.	Grad. Ed.	At home, 3402 Hillsboro	Raleigh, N. C.
Boone, J. Mark, Jr.	Sr. Constr. E.	2402 Hillsboro St.	Andrews, N. C.
Booth, H. Carlisle	Grad. M. E.	3 Maiden Lane	Sumter, S. C.
Bordeaux, Wm. P., Jr.	Jr. Acctg.	2901 Hillsboro St.	Burgaw, N. C.
Bost, James A.	Sr. Agr. Ec.	107 6th, Box 3243	Concord, N. C.
Bost, Jno. W.	Sr. E. E.	13 W. Dixie Drive	Eagle Springs, N. C.

Name	*Classification*	*College Address*	*Home Address*
Boswell, L. M.	Sr. Ag. Ed.	2512 Clark, Box 5416 (S. C. S.)	Summerfield, N. C.
Bowen, F. B.	Jr. Chem. E.	122 1911, Box 3722	Burgaw, N. C.
Bowen, J. P.	Sr. B. Ad.	2603 Clarke Ave.	Burgaw, N. C.
Bowen, R. E.	So. Chem. E.	207 South, Box 3539	Plymouth, N. C.
Bowen, Wm. Claudius	Fr. E. E.	1306 Hillsboro St.	Smithfield, N. C.
Bowers, J. L.	Fr. Civ. E.	201 1st, Box 3106	Whiteville, N. C.
Bowles, D. A.	Fr. C. E.	308 1911, Box 3788	Fayetteville, N. C.
Bowling, H. L.	So. Ind. Arts	221 South, Box 3553	Spray, N. C.
Boyd, J. F., Jr.	Fr. C. E.	1306 Hillsboro St.	Charlotte, N. C.
Boyd, R. B.	Fr. Chem. E.	at home, 224 S. East St.	Raleigh, N. C.
Boyd, William	Jr. E. E.	235 1911, Box 3375	Wilmington, N. C.
Boyd, W. B.	Jr. Cer. E.	202 1911, Box 3742	Middleburg, N. C.
Boykin, J. R.	Fr. E. E.	2004 Hillsboro	Charlotte, N. C.
Boykin, Willis E.	So. For.	2004 Hillsboro, Box 5012 State College Sta.	Charlotte, N. C.
Boyles, S. J., Jr.	So. Chem. E.	203 Chamberlain	Winston-Salem, N. C.
Bradley, J. W., Jr.	Fr. E. E.	1306 Hillsboro St.	Fairmont, N. C.
Bradley, M. L.	Sr. M. E.	213 Woodburn Road	Fayetteville, N. C.
Bradshaw, Palmer M.	Sr. B. Ad.	1217 Hillsboro St.	Lenoir, N. C.
Bradshaw, R. A.	Jr. Constr. E.	318 Watauga, Box 5471	Salisbury, N. C.
Bragg, Henry J.	Sr. Soils		
Brammer, F. E.	Sr. E. E.	335 1911, Box 3815	Athens, W. Va.
Brannon, D. A.	So. Tex.	8 Maiden Lane	Rockingham, N. C.
Braswell, W. E.	Jr. Chem. E.	209 Watauga, Box 3027	Greensboro, N. C.
Brendle, Ford P.	So. Agr. Ed.		
Brewer, Dennis E.	Sr. Ind. Mgt.	2702 Hillsboro, Box 5156	Clemmons, N. C.
Bridges, K. A.	Jr. Tex.	2405 Clark Ave.	Griffin, Ga.
Breitz, G. F., Jr.	So. B. Ad.	319 South, Box 3583	Selma, N. C.
Brinson, Edward S.	Fr. H. S. T.	1812 Park Drive	New Bern, N. C.
Britt, James M.	Fr. B. Ad.	7 Maiden Lane, Box 5284	Newton Grove, N. C.
Broadmeadow, John C.	Jr. Chem. E.	2232 Hillsboro St.	New Bedford, Mass.
Brock, Frank K.	Fr. Agr.	212 1911, Box 3752	Trenton, N. C.
Brock, Jack K.	Fr. Ed.	117 7th, Box 3317	Trenton, N. C.
Brockwell, Kenlon H.	Fr. Arch. E.	at home, 726 W. Hargett St.	Raleigh, N. C.
Bronson, Charles H.	So. Chem. E.	No. 4, Y. M. C. A.	Durham, N. C.
Brooks, B. W.	So. Tex.	120 Forest Rd., Box 5416	N. Wilkesboro, N. C.
Brooks, Chas. T.	Fr. B. Ad.	1720 Hillsboro St.	Newport News, Va.
Brooks, Hurt M.	So. Chem. E.	107 South, Box 3507	Oxford, N. C.
Brooks, Mary Elizabeth	Sr. H. S. T.	at home	Garner, N. C.
Broome, J. C.	So. Ag. Ed.	317 South, Box 3581	Aurora, N. C.
Broughton, Margaret E.	Spec. Ed.	at home, 203 Hillcrest Rd.	Raleigh, N. C.
Broughton, Woodrow W.	Fr. Bus.	at home	Garner, N. C.
Brown, Arthur William	Fr. Chem.	at home, 1805 St. Mary's St.	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Brown, Carr E.	So. H. S. T.	102 6th, Box 3238	N. Wilkesboro, N. C.
Brown, C. J.	Jr. E. E.	232 1911, Box 3772	Warsaw, N. C.
Brown, H. C.	Sr. Mktg.	205 6th, Box 3253	Erwin, N. C.
Brown, H. G.	So. Agr. Ec.	323 1911, Box 3803	Belcross, N. C.
Brown, H. J., Jr.	Fr. E. E.	112 Watauga, Box 3012	Snow Hill, N. C.
Brown, Jack Maxwell	Fr. M. E.	329 South, Box 3593	Burlington, N. C.
Brown, J. P.	Fr. B. Ad.	at home, 1027 Hillsboro St.	Raleigh, N. C.
Brown, John Wm.	Fr. C. E.	611 Craig St.	Sanford, N. C.
Brown, W. A., Jr.	Fr. B. Ad.	21 Enterprise St.	Concord, N. C.
Brown, W. J.	Jr. Constr. E.	at home, 603 Willard Place	Raleigh, N. C.
Browne, Micou F.	Fr. B. Ad.	at home, 1715 Park Drive	Raleigh, N. C.
Brownell, Geo. H.	Jr. Chem. E.	123 Chamberlain St.	Asheville, N. C.
Browning, R. G., Jr.	So. Constr. E.	at home, 101 E. Whitaker Mill Rd.	Raleigh, N. C.
Bruce, Robt. M.	Sr. Chem. E.	102 1911, Box 3702	Princeton, W. Va.
Bruton, James Kenneth	Fr. Tex.	209 Ashe Ave.	Mt. Gilead, N. C.
Buchanan, James	Fr. B. Ad.	230 South, Box 3562	Sanford, N. C.
Buchanan, J. E.	Jr. M. E.	1306 Hillsboro St., (Box 5212 State Col. Sta.)	Norton, Va.
Buchanan, W. R.	Sr. E. E.	Nordell Hill, Phone 1767-W	Little Switzerland, North Carolina
Buffalo, Wm. J.	Grad. Educ.	at home	Garner, N. C.
Bumgardner, Mamie Liela	Grad. Educ.	at home, R-3	Raleigh, N. C.
Bumgarner, John R.	Grad. Chem.	2609 Clark, Box 5491	N. Wilkesboro, N. C.
Burch, Roy A.	So. Cer.	315 1911, Box 3795	Canton, N. C.
Burgess, L. R.	Jr. Tex.	238 1911, Box 3778	Pleasant Gard., N. C.
Burnett, Tom L.	Fr. M. E.	102 4th, Box 3112	Greenville, S. C.
Burns, G. D.	Jr. Agr.	106 1911, Box 3706	Ansonville, N. C.
Burns, Preston A.	So. B. Ad.	104 1911, Box 3704	Ansonville, N. C.
Burt, Braxton S.	So. E. E.	at home, Avent Ferry Rd.	Raleigh, N. C.
Busbee, Frank I.	So. Ind. Mgt.	at home, 502 Adams St.	Raleigh, N. C.
Butler, J. C.	Fr. M. E.	No. 2, Y. M. C. A.	Clinton, N. C.
Butler, W. G.	Sr. L. A.	2004 Hillsboro St., (Box 5624 State Col. Sta.)	Fayetteville, N. C.
Byrum, John Ward	Fr. E. E.	208 6th, Box 3256	Tyner, N. C.
Caldwell, C. S.	Fr. Biol.	210 7th, Box 1034	Concord, N. C.
Caldwell, Edgar B., Jr.	Sr. Tex.	at home, Apt. 4-A, Carolina Apts.	Raleigh, N. C.
Caldwell, S. H.	So. Tex.	210 7th, Box 3342	Concord, N. C.
Caldwell, Wm. K.	Jr. Ind. Mgt.	1922 Hillsboro St., (Box 5565 State Col. Sta.)	Dillon, S. C.

Name	*Classification*	*College Address*	*Home Address*
Calhoun, A. E.	Jr. Chem. E.	327 1911, Box 3807	Rocky Mount, N. C.
Callaway, Richard E.	Fr. For.	16 South, Box 3612	Albemarle, N. C.
Callihan, James C.	Fr. Ag. Ed.	202 Cox Ave.	Whiteville, N. C.
Cameron, H. C., Jr.	So. E. E.	329 1911, Box 3809	Olivia, N. C.
Cameron, H. F., Jr.	So. Game Mgt.	318 7th, Box 3384	Corozal, Canal Zone
Campbell, Allen B.	Grad. E. E.	1623 Park Drive	Tampa, Fla.
Campbell, Claiborne M.	Fr. Chem. E.	112 South, Box 3512	Mocksville, N. C.
Campbell, D. Morrison	Fr. B. Ad.	at home, 209 Ashe Ave.	Raleigh, N. C.
Campbell, James H.	Fr. Ag. Ed.	115 Woodburn Rd.	Taylorsville, N. C.
Campbell, W. R.	So. M. E.	at home.	
		404 Cutler St.	Raleigh, N. C.
Canady, Joe L., Jr.	Fr. Chem. E.	211 7th, Box 3343	Wilmington, N. C.
Canup, Harley L.	So. E. E.	116 7th, Box 3316	Salisbury, N. C.
Carpenter, Harris D.	So. Tex.	12 Enterprise St.	Lincolnton, N. C.
Carr, Geo. B.	So. Biol.	106 South, Box 3506	Rose Hill, N. C.
Carrigan, W. K.	So. B. Ad.	115 Forest Road	China Grove, N. C.
Carrow, C. L., Jr.	So. Tex.	119 1911, Box 3719	Kinston, N. C.
Carter, F. A.	Jr. E. E.	118 South, Box 3518	Cornelius, N. C.
Carter, R. C.	Fr. M. E.	2901 Hillsboro St.	Henderson, N. C.
Carter, Tom Mann	Fr. For.	1710 Hillsboro St.	Washington, N. C.
Casey, R. J.	Jr. Constr. E.	2702 Hillsboro St.	Utica, N. Y.
Cashion, Thos. J.	So. Tex.	323 South, Box 3587	Kannapolis, N. C.
Castlebury, J. C.	So. Ag. Ed.	at home	Apex, N. C.
Cauthen, G. C., Jr.	So. Bus.	at home,	
		523 N. Person St.	Raleigh, N. C.
Chambers, C. L.	Sr. B. Ad.	114 Watauga, Box 5245	Winston-Salem, N. C.
Chambers, W. F.	So. Chem. E.	114 Watauga, Box 3014	Winston-Salem, N. C.
Chamblee, H. R.	Spec. Soc.	217 E. North St.	Raleigh, N. C.
Channing, L. C.	Jr. Bus.	225 7th, Box 3357	Norfolk, Va.
Chapman, G. Blan.	Sr. B. Ad.	21 Enterprise St.	Charlotte, N. C.
Chapman, Jesse R.	Fr. H. S. T.	210 6th, Box 3258	Dover, N. C.
Chatfield, Emery E.	Jr. For.	209 7th, Box 3341	Peach Creek, W. Va.
Cheatham, Wm. C.	Sr. E. E.	at home.	
		845 Holt Drive	Raleigh, N. C.
Cherevko, Alexander S.	Fr. M. E.	108 6th, Box 3244	Brooklyn, N. Y.
Chidester, Leon I.	Sr. E. E.	103 Chamberlain St.	High Point, N. C.
Childs, Raymond C.	Jr. Chem. E.	2232 Hillsboro St.	New Bedford, Mass.
Chomin, Harry T.	Fr. B. Ad.	306 4th, Box 3132	Dunmore, Pa.
Clapp, Howard R.	So. Ag. Spec.	319 1911, Box 3799	Swannanoa, N. C.
Clark, Clarence L.	Fr. M. E.	301 Watauga, Box 3037	Norfolk, Va.
Clark, Gilbert	Jr. B. Ad.	303 Watauga, Box 3039	Jackson Spgs., N. C.
Clark, H. S., Jr.	Jr. E. E.	219 7th, Box 5646	Savannah, Ga.
Clark, Jack H.	So. La. Arch.	126 1911, Box 3726	Mooresville, N. C.
Clark, Kirkland W.	Fr. M. E.	311 1911, Box 3791	Wilmington, N. C.
Clark, Neill W.	Fr. For.	116 Hawthorne Rd.	Hickory, N. C.
Clark, W. J.	Sr. For.	116 Woodburn Rd.	Newton, N. C.
Claytor, Robt. H.	Fr. Agr.	211 1911, Box 3751	Hillsboro, N. C.

Name	*Classification*	*College Address*	*Home Address*
Cleve, Abe	Fr. Chem. E.	312 5th, Box 3236	Vanceboro, N. C.
Cleve, Bill	Fr. Chem. E.	312 5th, Box 3236	Vanceboro, N. C.
Clevenger, C. Stanley	Sr. Game Mgt.	1922 Hillsboro St.	Winchester, Va.
Cline, Joe F.	Jr. Tex.	302 4th, Box 3128	Salisbury, N. C.
Cline, Wm. E.	Fr. M. E.	304 4th, Box 3130	Drexel, N. C.
Cloer, W. G.	So. M. E.	S Ferndell Lane	Taylorsville, N. C.
Coachman, J. W.	Jr. M. E.	2405 Clark Ave.	Moravian Falls, N. C.
Coats, Elbert F.	Fr. Educ.	129 South, Box 3529	Garner, N. C.
Cobb, A. P.	Jr. Agr. Econ.	313 Watauga, Box 3049	LaGrange, N. C.
Coble, Wade G.	Jr. B. Ad.	214 Watauga, Box 3032	Burlington, N. C.
Coffey, J. W.	Jr. E. E.	202 4th, Box 5441	Lenoir, N. C.
Coldiron, C. C.	So. B. Ad.	130 Forest Rd.	Wilmington, N. C.
Cole, Chas. S.	Fr. Chem. E.	2405 Clark Ave.	Canton, N. C.
Cole, John P., Jr.	Fr. B. Ad.	at home, 1002 Glenwood Ave.	Raleigh, N. C.
Cole, L. L.	Jr. E. E.	201 Cox Ave.	Derby, Va.
Cole, W. G., Jr.	Fr. C. E.	315 1911, Box 3795	Canton, N. C.
Coleman, Robt. T.	So. B. Ad.	1430 Scales St.	Ridgeway, Va.
Colenda, Stephen	Sr. E. E.	310 South, Box 3574	Union City, N. J.
Colvard, Howard C.	Sr. Ag. Ed.	120 Forest Road	Reddies River, N. C.
Colwell, Elizabeth	So. S. and B.	at home, 313 E. Lane St.	Raleigh, N. C.
Colwell, Marguerite	So. S. and B.	at home, 313 E. Lane St.	Raleigh, N. C.
Combs, A. Bryan	Fr. M. E.	at home, 2238 Circle Drive	Raleigh, N. C.
Comfort Clifford Wm.	Fr. For.	208 Forest Road	Asbury Park, N. J.
Constant, Theodore F.	Sr. B. Ad.	120 Groveland Ave.	Norfolk, Va.
Cooper, E. W.	Fr. B. Ad.	130 7th, Box 3330	Kinston, N. C.
Cooper, Henry M.	Jr. E. E.	106 South, Box 3506	Kenansville, N. C.
Cooper, James T.	Jr. A. H.	106 Horne St., Box 5424	Dudley, N. C.
Cooper, Percy H.	So. Ed.	1 Y. M. C. A., Box 5181	Greensboro, N. C.
Copeland, Jack G., Jr.	Fr. Chem. E.	306 Watauga, Box 3042	Fremont, N. C.
Coppersmith, Wiley B., Jr.	Fr. S&B	2230 Hillsboro St.	Elizabeth City, N. C.
Corpening, B. H.	Jr. For.	115 Forest Road	Lenoir, N. C.
Corpening, Wayne A.	Fr. Agr.	204 5th, Box 3216	Fletcher, N. C.
Correll, F. E., Jr.	So. Agr. Spec.	Greenhouse, Box 5254	Barber, N. C.
Cotner, Mary Clyde	Grad. Zoöl.	At home, 2718 Clarke	Raleigh, N. C.
Cotton, Horace P.	So. E. E.		Red Springs, N. C.
Cottrell, R. H., Jr.	Sr. E. E.	210 1911, Box 3750	Winston-Salem, N. C.
Couch, A. H.	Jr. Cer. E.	21 Enterprise St.	Darlington, S. C.
Coulter, Seth A.	Fr. C. E.	118 South, Box 3518	Catawba, N. C.
Covington, R. R.	So. H. S. T.	At home, 605 N. Blount	Raleigh, N. C.
Cox, Clewell Curtis	Fr. For.	203 5th, Box 3215	Winston Salem, N. C.
Cox, Duncan Craven	Fr. M. E.	106 Horne St.	Sanford, N. C.
Cox, Paul M.	Fr. Ag. Spec.	101 6th, Box 3237	Newport News, Va.
Cox, Rupert L.	So. Chem. E.	2230 Hillsboro St.	Elizabeth City, N. C.

Name	*Classification*	*College Address*	*Home Address*
Cozzens, Wm. I.	Fr. C. E.	2410 Everett Ave., (Box 5412 S. C. S.)	Edenton, N. C.
Crafton, Melvin	Grad. Bot.	2201 Clarke Ave.	Flat Rock, Ind.
Cragan, Paul S.	Grad. Educ.		
Crandall, Houston M.	Fr. For.	123 South, Box 3523	Dixiana, Ala.
Craven, W. L.	Fr. Tex.	214 South, Box 3546	Sanford, N. C.
Crawford, F. M.	Jr. B. Ad.	2702 Hillsboro St.	Statesville, N. C.
Crawford, J. S.	So. Cer. E.	204 6th, Box 3252	Wilson, N. C.
Crawford, Marianna	Grad. Educ.	227 New Bern Ave.	Raleigh, N. C.
Creech, James A.	Sr. B. Ad.	1306 Hillsboro St.	Florence, S. C.
Creel, W. C.	Fr. Educ.	At home, Route 4	Raleigh, N. C.
Crew, John R., Jr.	Fr. E. E.	230 South. Box 3562	Weldon, N. C.
Crocker, George	So. Const. E.	At home, 1004 Cowper D.	Raleigh, N. C.
Croker, T. C., Jr.	Sr. For.	1700 Park Drive	Fayetteville, N. C.
Cromartie, H. H.	Fr. E. E.	1301 Hillsboro (Home)	Raleigh, N. C.
Croom, Arthur B.	Jr. Chem.	3 E. Jones	Maxton, N. C.
Croom, Clifton A.	Fr. M. E.	13 Y. M. C. A., Box 5261	Bolton, N. C.
Croom, Clyde W.	Jr. Agr. Sp.	117 Forest Road	Knightdale, N. C.
Crow, A. B.	Sr. For.	116 Woodburn Road	Pittsburgh, Pa.
Crow, Hubert D.	Sr. Chem.	At home, 3 E. Jones St.	Raleigh, N. C.
Crumpler, B. Frank	Sr. Educ.	120 Groveland Ave.	Salemburg, N. C.
Crumpler, H. L.	Fr. B. Ad.	7 Y. M. C. A.	Roseboro, N. C.
Crutchfield, E. B.	Sr. M. E.	218 Watauga, Box 3036	Roanoke Rpds., N. C.
Culberson, Geo. R.	Fr. Tex.	103 Chamberlain St.	Rockingham, N. C.
Culbertson, J. S.	Sr. E. E.	1718½ Hillsboro St., (Box 5428, S. C. S.)	Woodleaf, N. C.
Culp, B. B.	So. B. Ad.	339 1911, Box 3819	Gastonia, N. C.
Culp, J. W., Jr.	Sr. Chem. E.	339 1911, Box 3819	Gastonia, N. C.
Culp, Max A.	Fr. Agr.	124 1911, Box 3724	Mooresville, N. C.
Cumiskey, Edgar J.	So. B. Ad.	2230 Hillsboro St.	Youngstown, Ohio
Cummings, Ralph W.	Sr. Soils	8 Y. M. C. A.	Reidsville, N. C.
Curry, Wm. L.	Jr. M. E.	At home, 1827 Glenwood	Raleigh, N. C.
Czabator, Felix J.	So. For.	314 7th. Box 3380	Shenandoah, Pa.
Dalton, B. S.	So. M. E.	At home, 702 W. Morgan	Raleigh, N. C.
Dameron, Ernest C.	So. San. E.	3 Gym, Box 5392	Bessemer City, N. C.
Daniel, Chas. M.	Grad. M. E.	1702 Hillsboro St.	Alderson, W. Va.
Daniel, David Ray	Fr. E. E.	2402 Hillsboro St.	Salisbury, N. C.
Daniel, Geo. B.	Fr. E. E.	302 1911, Box 3782	Rocky Mount, N. C.
Daniels, E. R.	So. Agr. Ec.	5 Infirmary, Box 5627	Spring Hope, N. C.
Daniels, Hal F.	So. B. Ad.	2230 Hillsboro St.	Manteo, N. C.
Darst, W. H., Jr.	Fr. E. E.	At home, 1609 Park Dr.	Raleigh, N. C.
Daugherty, C. Clifton	So. Chem. E.	126 7th, Box 5091	New Bern, N. C.
Dauray, Ernest	Irr. Tex.	321 7th, Box 3387	Central Falls, R. I.
Daves, A. H., Jr.	Fr. B. Ad.	2314 Hillsboro St.	Winston-Salem, N. C.
Davis, Bryan G.	Fr. B. Ad.	2107 Breeze Road	Raleigh, N. C.
Davis, Charles	Fr. For.	224 Woodburn Road, Box 3215	Winston-Salem, N. C.

Name	*Classification*	*College Address*	*Home Address*
Davis, Connie B.	Sr. Chem. E.	13 Maiden Lane	Bladenboro, N. C.
Davis, Chas. L.	So. Ag. Ec.	303 5th, Box 3227	Conway, S. C.
Davis, C. R.	Irr. M. E.	2230 Hillsboro St.	Manteo, N. C.
David, Fred B.	So. Ag. Ed.	112 Cox Ave.	Rockford, N. C.
Davis, Frank W.	So. S&B.	303 6th, Box 3263	Saco, Maine
Davis, L. C., Jr.	Fr. E. E.	214 South, Box 3546	Sanford, N. C.
Davis, P. P.	Fr. Ed.	121 7th, Box 5314	Elizabeth City, N. C.
Davis, Richard S.	Sr. S&B.	2407 Clark Av., Bx. 5428.	Winston-Salem, N. C.
Davis, Shipp C.	Fr. Cer. E.	2314 Hillsboro St.	Winston-Salem, N. C.
Davis, Wm. Edgar, Jr.	Jr. M. E.	316 South, Box 3580	Wilmington, N. C.
Deaton, R. L., Jr.	Jr. B. Ad.	At home, 2720 Lassiter Mill Road	Raleigh, N. C.
Dees, Gordon W.	Fr. Agr.	20 Bagwell Ave.	Willard, N. C.
Derrick, LeGrande G.	Sr. Tex.	103 Harrison Ave.	Newberry, S. C.
Dick, W. E.	Jr. L. A.	2220 Hillsboro, Box 5164	Concord, N. C.
Dickens, H. M.	Jr. B. Ad.	2220 Hillsboro St.	Varina, N. C.
Dickerson, Elvin W.	So. Ag. Sp.	2609 Clark, Box 5162	Asheville, N. C.
Dickerson, F. W.	Fr. E. E.	232 1911, Box 3772	Salisbury, N. C.
Diehl, Kenneth C.	So. Ar. E.	327 W. Morgan St.	Philadelphia, Pa.
Dillard, Olin S.	Fr. B. Ad.	2609 Clark Ave.	Leicester, N. C.
Dinkelspiel, Henry S.	Sr. Chem. E.	Gym, Box 5463	Memphis, Tenn.
Dixon, Donald C.	So. For.	208 7th, Box 3340	Pittsburgh, Pa.
Dixon, Harvey O.	Fr. Chem. E.	120 South, Box 3520	Winston-Salem, N. C.
Dixon, Joe	Jr. Chem. E.	224 1911, Box 3764	Greenville, N. C.
Dixon, W. L., Jr.	So. E. E.	2004 Hillsboro St.	Charlotte, N. C.
Dobbins, Geo. Bynum	Fr. M. E.	At home, 619 Aycock	Raleigh, N. C.
Doerrie, Fred A.	Jr. For.	115 Woodburn Road	Raleigh, N. C.
Doggett, J. Frank	Jr. Chem. E.	2512 Clark Ave. (Box 5416, S. C. S.)	Summerfield, N. C.
Doll, Edwin N., II	Spec. For.	233 7th, Box 3365	Kew Gardens, L. I., N. Y.
Dorsey, Hugh D.	Fr. M. E.	201 South, Box 3533	Cartersville, Ga.
Douglass, O. R.	So. For.	324 7th, Box 3390	Lake City, Fla.
Dowdy, Elmer R.	So. Ag. Ed.	19 Furches, Box 5451	Harbinger, N. C.
Dowell, Helen L.	So. Ed.	At home, 401 S. Boylan	Raleigh, N. C.
Dozier, Needham B., Jr.	Fr. B. Ad.	307 Watauga, Box 3043	Rocky Mount, N. C.
Draper, Chas. L.	Fr. Biol.	104 5th, Box 3204	Conway, N. C.
Drinkwater, King	Fr. B. Ad.	15 South, Box 3611	Baltimore, Md.
Drumwright, A. L.	Sr. Constr. E.	203 Watauga, Box 3021	Norfolk, Va.
Dry, Wm. H.	Grad. Ed.	At home	Cary, N. C.
Dudley, Hubert J.	Fr. B. Ad.	116 N. Dawson St.	Vanceboro, N. C.
Dudley, Laurence A.	Jr. Chem. E.	224 1911, Box 3764	Greenville, N. C.
Duke, R. L.	Fr. H. S. T.	3 Gym, Box 5392	Norlina, N. C.
Duke, Willie E.	Sr. S&B.	At home, 110 Seawell	Raleigh, N. C.
Dunaway, W. F.	Fr. Bus.	203 4th	Raleigh, N. C.
Duncan, Isaac P.	Fr. E. E.	312 6th, Box 3272	N. Wilkesboro, N. C.
Duncan, Julius A.	Sr. Tex.	At home, 407 N. Blount	Raleigh, N. C.
Duncan, N. Carlyle	Fr. Biol.	At home, Route 3	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Dunn, Jesse F., Jr.	So. Tex.	2407 Clark Ave.	Rocky Mount, N. C.
Dunn, Robt. McD.	Fr. E. E.	1214 College Place	Elk Park, N. C.
Dusinski, S. J.	Jr. Chem. E.	618 Hillsboro St.	Nazareth, Pa.
Dusty, J. W.	Fr. M. E.	222 7th, Box 3354	Waterville, Me.
Dyer, J. Donald	Fr. B. Ad.	211 South, Box 4333	Lawrence, Mass.
Earle, G. M.	Sr. B. Ad.	301 4th, Box 3127	Salisbury, N. C.
Early, Conley F.	Jr. Chem. E.	107 1911, Box 3707	Princeton, W. Va.
East, Walter W.	So. Ind. Eng.	512 Graham St.	Danville, Va.
Echerd, Margaret Louise	So. Com. T.	At home, 705 Florence	Raleigh, N. C.
Edgerton, Charles Taylor	Jr. E. E.	324 Cutler St.	Buies Creek, N. C.
Edgerton, Eric R.	Fr. E. E.	210 South, Box 3547	Kenly, N. C.
Edmond, Paul F.	Jr. Voc. Agr.	209 5th, Box 3221	Tillery, N. C.
Edmonson, F. A., Jr.	So. Chem. E.	2405 Clark Ave.	Charlotte, N. C.
Edwards, R. G., Jr.	So. B. Ad.	1710 Hillsboro St. (Box 5065, S. C. S.)	Siler City, N. C.
Edwards, W. J.	Sr. B. Ad.	310 1911, Box 3046	Snow Hill, N. C.
Efland, John L., Jr.	Fr. Bus.	202 South, Box 3534	Efland, N. C.
Eisenberg, S. L.	Fr. Chem.	305 7th, Box 3371	Durham, N. C.
Eldridge, C. W.	So. Tex.	2230 Hillsboro St.	Charlotte, N. C.
Elliott, M. G.	Sr. B. Ad.	1922 Hillsboro St.	Norfolk, Va.
Ellis, Wm. J.	Sr. Chem. E.	13 Maiden Lane	Goldston, N. C.
Epstein, A. M.	So. Ind. Eng.	120 1911, Box 3720	Goldsboro, N. C.
Erwin, John A.	Sr. Chem.	At home, Apt. 3-B, Carolina Hotel	Raleigh, N. C.
Eshelman, John A., Jr.	Fr. Tex.	116 Watauga, Box 3016	High Point, N. C.
Espey, Wm. H.	Sr. San. Eng.	2513 Clark Ave.	Hickory, N. C.
Etheridge, R. C.	So. Aero. E.	332 7th, Box 3398	Back Bay, Va.
Eubanks, J. B.	Grad. Ed.	115 Forest Road	Monroe, N. C.
Eudy, Hugh A.	So. B. Ad.	104 1st, Box 3104	Stanfield, N. C.
Evans, Nannie	Grad. Educ.		
Evans, Robt. H.	Jr. E. E.	321 1911, Box 3801	Greenville, N. C.
Evans, W. G., II	So. B. Ad.	221 7th, Box 3353	Wilmington, N. C.
Fabri, John	So. H. S. T.	116 7th, Box 5282	Taylorville, Ill.
Faison, H. C., Jr.	So. Agr.	315 Watauga, Box 3051	Winton, N. C.
Fallon, James	Fr. M. E.	110 South, Box 3510	E. Rutherford, N. J.
Farmer, B. D., Jr.	Sr. Tex. Mfg.	327 7th, Box 3393	Wilmington, N. C.
Farrar, Venice	Fr. B. Ad.	116 7th, Box 5321	Youngstown, Ohio
Farrell, James T.	So. B. Ad.	College Court Apts.	New Rochelle, N. Y.
Farris, Hal	So. Tex.	16 Enterprise St.	Shelby, N. C.
Faulkner, J. D.	Sr. M. E.	210 Groveland Ave.	New Bern, N. C.
Fergus, D. J.	Jr. Chem. E.	333 1911, Box 3813	Wilmington, N. C.
Ferguson, J. C.	Grad. Educ.	5 College Ct. Apts.	Cameron, N. C.
Ferland, Gerald D.	Irr. Tex.	321 7th, Box 3387	Saylesville, R. I.
Finch, C. Stewart	Fr. Chem. E.	2220 Hillsboro St.	Henderson, N. C.
Findlay, John	So. For.	103 Chamberlain St.	Charlotte, N. C.
Fisher, F. H.			

Name	*Classification*	*College Address*	*Home Address*
Fisher, G. A.	So. B. Ad.	313 1911, Box 3793	Salisbury, N. C.
Fisher, W. P.	Jr. M. E.	13 South, Box 3609	Southern Pines, N. C.
Flournoy, W. L.	Fr. E. E.	At home, 1637 Glenwood Ave.	Raleigh, N. C.
Flournoy, Walter N.	Fr. Biol.	At home, 1637 Glenwood Ave.	Raleigh, N. C.
Flythe, Stuart M.	Fr. Ag. Ed.	117 Seventh, Box 3317	Conway, N. C.
Foil, J. E.	So. Agr. Ed.	210 South, Box 3542	Rockwell, N. C.
Folley, A. L.	So. B. Ad.	221 1911, Box 3761	Aberdeen, N. C.
Fontaine, James	Grad. Math.	2712 Everett Ave.	Raleigh, N. C.
Forbes, Francis G.	Jr. Min. E.	201 5th, Box 3213	Toecane, N. C.
Ford, Gerald W.	Fr. M. E.	314 Watauga, Box 3050	Englewood, N. J.
Ford, Wm. D.	So. M. E.	104 1911, Box 3701	Winston-Salem, N. C.
Fornes, G. G.	Grad. M. E.	11 Enterprise St.	Arapahoe, N. C.
Forte, Salvatore A.	So. C. E.	222 Park Ave.	Orange, N. J.
Fortney, G. Nathaniel	Fr. Chem. E.	322 7th, Box 3388	York, Pa.
Fortune, Jack	Fr. Ind. Arts.	101 4th, Box 3111	Asheville, N. C.
Fortune, James R.	So. Chem. E.	2901 Hillsboro St.	Durham, N. C.
Fortune, M. D.	Sr. B. Ad.	101 4th, Box 3111	Asheville, N. C.
Foscue, J. Manly	So. C. E.	214 1911, Box 3754	Maysville, N. C.
Foscue, Macon Wayne	Jr. E. E.	332 1911, Box 3812	Trenton, N. C.
Foster, G. V.	Jr. B. Ad.	5 Y. M. C. A., Box 5692 (S. C. S.)	Greensboro, N. C.
Foster, H. B., Jr.	Fr. Chem. Eng.	124 Groveland Ave.	New Bern, N. C.
Foster, H. Herbert	So. Min. E.	1622 Park Drive	Littleton, N. C.
Foster, John Erwin	Grad. A. H.	217 Polk Hall, also 2716 Everett Ave.	Jefferson, N. C.
Fowler, E. B., Jr.	Soph. Tex.	131 South, Box 3531	Spencer, N. C.
Fowler, Samuel W.	Jr. M. E.	212 6th, Box 3260	Greensboro, N. C.
Fowler, T. J.	So. San. E.	102 New Bern Ave.	Monroe, N. C.
Fowles, Chas. V.	Fr. Aero. Op.	3000 Hillsboro St.	Tryon, N. C.
Fox, Byron A.	So. B. Ad.	124 Groveland Ave.	Sanford, Fla.
Fox, W. Haywood	Fr. C. E.	216 1911, Box 3756	Winston-Salem, N. C.
Foy, Chas. H.	So. Ind. Mgt.	1710 Hillsboro St.	Norfolk, Va.
Foy, H. M., Jr.	Jr. Tex.	327 South, Box 3591	Mt. Airy, N. C.
Fraser, Walter J.	So. B. Ad.	115 Watauga, Box 3015	Norfolk, Va.
Freas, Edward M.	Sr. A. H.	Fairground Ave., Box 5331	Murphy, N. C.
Freeman, J. T.	Jr. E. E.	116 South, Box 3516	Blackstone, Va.
Freeman, Olney Ray	Fr. Agr.	504 N. Blount St.	Colerain, N. C.
Frye, Donald K.	Sr. E. E.	102 1911, Box 3702	Princeton, W. Va.
Fulcher, Lester O.	Sr. E. E.	8 Y. M. C. A., Box 5374	Leaksville, N. C.
Fulford, Jas. H.	Fr. M. E.	308 Watauga, Box 3044	McComas, W. Va.
Fuller, Walter E.	Jr. Ag. Sp.	1806 Hillsboro St.	Louisburg, N. C.
Fuller, W. N., Jr.	Sr. Ind. Mgt.	2407 Clark Ave.	Louisburg, N. C.
Furr, W. Craig	So. B. Ad.	316 Watauga, Box 3052	High Point, N. C.

Name	*Classification*	*College Address*	*Home Address*
Gaither, S. Elisabeth	Sr. H. S. T.	At home, Western Blvd.	Raleigh, N. C.
Galba, Edward Paul	Sr. M. E.	114 Park Ave.	McKees Rocks, Pa.
Gantt, Elizabeth	So. H. S. T.	2 Logan Ct.	Raleigh, N. C.
Gardiner, Thos. B.	So. For.	318 7th, Box 3384	Wilkes-Barre, Pa.
Gardner, G. T.	Jr. Tex.	327 South, Box 3591	Grifton, N. C.
Gardner, Marshall J.	So. Chem.	1 Y.M.C.A., Box 5181	Greensboro, N. C.
Gardner, M. W.	So. C. E.	6 Y. M. C. A.	Goldsboro, N. C.
Gardner, T. C.	So. B. Ad.	301 Watauga, Box 3037	Goldsboro, N. C.
Garner, Chas. H.	Jr. E. E.	223 1911, Box 3763	Portsmouth, Va.
Garner, James A.	Fr. B. Ad.	216 Cox Ave.	Jonesboro, N. C.
Garner, L. O.	Jr. E. E.	2232 Hillsboro St.	Newport, N. C.
Garner, R. D.	Fr. Agr.	328 South, Box 3592	Newport, N. C.
Garodnick, I. O.	Fr. H. S. T.	224 7th, Box 3356	Newark, N. J.
Garrard, Lewis G.	So. Chem. E.	212 Watauga, Box 3030	Durham, N. C.
Garren, G. M.	Grad. Bot.	15 West Lenoir St.	Raleigh, N. C.
Garrou, John A.	Fr. Tex.	1720 Hillsboro St.	Morganton, N. C.
Gaskins, C. McNair	Sr. Bus.	2701 Clark Ave., Box 5463 (S. C. S.)	Spring Hope, N. C.
Gatewood, Cary I.	Fr. M. E.	203 6th, Box 3251	Pelham, N. C.
Gatlin, Marion H.	Fr. H. S. T.	105 Watauga, Box 3005	Raeford, N. C.
Gattis, A. R., Jr. (Jack)	Fr. Agr.	Gym, Box 5392	Burlington, N. C.
Gay, Connie B.	So. Ag. Ed.	212 Wat., Box 3030	Zebulon, N. C.
Gaydowski, John R.	Jr. Aero.	305 7th, Box 3371	Utica, N. Y.
Gaylord, Wm. Beckwith	Fr. E. E.	109 Oberlin Road	Wilmington, N. C.
Geddie, Edgar M.	Jr. E. E.	497 S. Boylan Ave.	Raleigh, N. C.
Geddie, J. C.	Jr. B. Ad.	497 S. Boylan Ave.	Raleigh, N. C.
Geilfus, Harold	Fr. B. Ad.	15 South, Box 3611	Baltimore, Md.
Gibbs, Eloise	Fr. Education	2304 Fairview Rd., (W. L. Spencer)	Columbia, N. C.
Gibbs, Preston E.	So. H. S. T.	608 Hillsboro St.	Mars Hill, N. C.
Gibson, J. E.	Fr. M. E.	2314 Hillsboro St.	Gibson, N. C.
Gibson, Noah F., Jr.	Sr. Tex.	221 1911, Box 3761	Gibson, N. C.
Giles, Ralph J.	Fr. Bus.	1720 Hillsboro St.	Glen Alpine, N. C.
Gillette, Geo. W., Jr.	So. C. E.	1710 Hillsboro St., (Box 5065 S. C. S.)	Wilmington, N. C.
Gilliam, Robert H.	So. For.	308 6th, Box 5441	Sanford, N. C.
Ginsburg, Marshall E.	Fr. Educ.	524 S. Boylan Ave.	Carthage, N. C.
Glenn, Karl B.	Grad. E. E.	At home, 309 N. Bloodworth St.	Raleigh, N. C.
Goad, W. D.	Fr. M. E.	315 S. Boylan Ave.	Raleigh, N. C.
Godfrey, R. E.	Jr. Bus.	1306 Hillsboro St.	New Bern, N. C.
Going, Ralph C.	Fr. Tex.	113 South, Box 3513	Fieldale, Va.
Gonzalez, Alfredo	Grad.	2609 Clark Av., Bx. 5372.	Monterey, N. L. Mex.
Gooding, W. B.	Sr. Ag. Ec.	2004 Hillsboro St.	Oriental, N. C.
Goodwin, C. L.	Jr. M. E.	212A New Bern Ave.	Raleigh, N. C.
Goodwin, C. R.	Jr. Mktg.	At home, 611 W. Lane.	Raleigh, N. C.
Goodwyn, E. R., Jr.	Sr. Bus.	2220 Hillsboro St. (Box 5164 S. C. S.)	Greenwood, S. C.

Name	*Classification*	*College Address*	*Home Address*
Gorman, Chas. P., Jr.	So. Chem. E.	222 1911, Box 3762	Wilmington, N. C.
Grady, J. E.	Fr. Agr. Ec.	106 South, Box 3506	Mt. Olive, N. C.
Graham, J. Purser	So. Agr. Ed.		
Graham, W. Bernice	Fr. For.	306 4th, Box 3132	Vass, N. C.
Grant, John W.	Fr. Ag. Ed.	325 South, Box 3589	Garysburg, N. C.
Gravely, Edward J.	Sr. M. E.	320 1911, Box 3800	Monroe, N. C.
Graves, Edna Ruth	So. H. S. T.	10 Bagwell Ave.	Birmingham, Ala.
Graves, John B.	So. For.	10 Bagwell Ave.	Birmingham, Ala.
Gray, Frances Louise	Sr. H. S. T.	2902 Fair Ground Ave.	Raleigh, N. C.
Gray, H. E.	So. M. E.	305 Watauga, Box 3041	High Point, N. C.
Greason, Robt. R.	Jr. B. Ad.	204 4th	Wake Forest, N. C.
Greaves, R. E.	Grad.	2512 Clarke Ave.	Raleigh, N. C.
Green, Eleanor M.	Fr. Ed.	712 W. North St.	Raleigh, N. C.
Greene, R. E. L.	Grad. Ag. Ec.	At home, Rt. 3	Raleigh, N. C.
Greenwood, W. F.	So. M. E.	21 Enterprise St.	Rocky Mount, N. C.
Gregory, Jesse M.	So. M. E.	2402 Hillsboro St.	Fredericksburg, Va.
Gregory, Norman S.	Sr. Ind. Mgt.	1922 Hillsboro St.	Elizabeth City, N. C.
Gregory, W. H., Jr.	Fr. E. E.	116 Watauga, Box 3016	Angier, N. C.
Griffin, A. H.	So. Ind. Mgt.	8 Maiden Lane	Edenton, N. C.
Griffin, Chas. B., Jr.	Sr. Chem. E.	130 Forest Rd.	Lewiston, N. C.
Griffin, Harold C.	Fr. M. E.	109 1911, Box 3709	Salisbury, N. C.
Griffin, Joe E.	Fr. Ag. Ed.	106 5th, Box 3206	Fairmont, N. C.
Griffin, J. Thurman	So. Ag. Ed.	"Westover," J. J. Lancaster	Gupton, N. C.
Griffin, Robt. J., Jr.	So. Tex. Mfg.	327 7th, Box 3394	Wilmington, N. C.
Griffith, James J., Jr.	So. Tex.	202 7th, Box 3334	Kernersville, N. C.
Grigg, C. Dupree	So. Ag. Ed.	College Dining Hall, (Box 5133 S. C. S.)	Morven, N. C.
Grimes, G. J.	Sr. Cer. E.	2220 Hillsboro St.	Mt. Olive, N. C.
Gruehn, E. L. K.	Jr. Ag. Econ.	104 South, Box 5322	
Guillet, A. M.	Fr. Tex.	2220 Hillsboro St.	Charlotte, N. C.
Gurley, N. H.	Sr. M. E.	8 Ferndell Lane, (Box 5323 S. C. S.)	Goldsboro, N. C.
Guzas, J. V.	Fr. Ed.	317 1911, Box 3797	New York, N. Y.
Gwaltney, H. G.	Fr. E. E.	203 1911, Box 3770	Winston-Salem, N. C.
Gyarfas, J. John	Fr. For.	110 South, Box 3510	Linden, N. J.
Hadlow, W. L., Jr.	So. M. E.	Power Plant, Box 3559	Rocky Mount, N. C.
Hafer, Alvin B.	Sr. For.	116 Woodburn Road	Chambersburg, Pa.
Hagerman, Samuel N.	Jr. M. E.	2012 St. Mary's St.	Raleigh, N. C.
Hagopian, Hagop T.	Grad. Plant Br.	2224 Hillsboro St.	Cairo, Egypt
Hairr, L. B.	Jr. For.	129 South, Box 3529	Faison, N. C.
Hall, Herbert B.	Fr. B. Ad.	123 1911, Box 3723	Roseboro, N. C.
Hall, James C.	So. E. E.	208 South, Box 3540	Autryville, N. C.
Hall, James Olin	Sr. San. Eng.	210-5th, Box 5522	Oxford, N. C.
Hall, L. W.	So. E. E.	219 South, Box 3551	Wilmington, N. C.
Hall, Robert L.	Fr. Ed.	208 South, Box 3540	Autryville, N. C.
Hall, Wm. Edward	Fr. Arch. E.	209 1911, Box 3749	Statesville, N. C.

Name	*Classification*	*College Address*	*Home Address*
Haller, C. P., Jr.	So. Min. E.	311 Seventh, Box 3377	Chambersburg, Pa.
Halverson, Edna May	Jr. H. S. T.	At home, 2813 Mayview	Raleigh, N. C.
Hamburger, Herbert M.	So. E. E.	120 Groveland Ave.	Norfolk, Va.
Hamlet, Mary Elizabeth	So. H. S. T.	At home, 118 Polk St.	Raleigh, N. C.
Hammerick, W. P.	So. Chem. E.	Gymnasium	Pekin, Ill.
Hammond, Jas. H.	Fr. Agr.	333 7th, Box 3399	Wilmington, Del.
Haney, K. A.	Sr. A. H.	216 Forest Rd. Circle	Marshville, N. C.
Hanks, W. F.	Sr. H. S. T.	103 Chamberlain St.	Charlotte, N. C.
Hanna, J. Wm.	Jr. San. E.	2513 Clark Ave.	Landis, N. C.
Hanna, Marcus W.	So. Arch.	340-1911, Box 3820	Cramerton, N. C.
Harding, Catherine	Sr. H. S. T.	At home, 116 W. Jones	Raleigh, N. C.
Harding, L. R.	Sr. H. E.	310 5th, Box 3234	Asheville, N. C.
Harmon, Marion J.	Fr. Ag. Ed.	At home, 225 Hillsboro	Raleigh, N. C.
Harper, John F.	Fr. Ag. Sp.	16 N. Dawson St.	Wallace, N. C.
Harper, Ralph B.	Sr. Dairy Mfg.	407 Dixie Trail	Whiteville, N. C.
Harrell, Andrew J.	Fr. Agr. Sp.	122 South, Box 3522	Potecasi, N. C.
Harrell, Cola R.	Jr. C. E.	122 South, Box 3522	Potecasi, N. C.
Harrington, J. Moye	Fr. Chem.	1710 Hillsboro St.	Washington, N. C.
Harris, B. R.	Jr. Tex.	At home, 605 Adams St.	Raleigh, N. C.
Harris, C. Scott, Jr.	So. Bus.	At home, 1818 Glenwood	Raleigh, N. C.
Harris, F. V.	Jr. A. H.	337 1911, Box 3817	Pike Road, N. C.
Harris, H. H.	Sr. A. H.	337 1911, Box 3817	Pike Road, N. C.
Harris, John H.	Fr. L. A.	419 N. Boylan Ave.	Siler City, N. C.
Harris, J. Wm.	So. Chem. E.	115 South, Box 3515	Wadeville, N. C.
Harris, Paul C.	So. E. E.	206 Watauga, Box 3024	Norfolk, Va.
Harris, R. J.	Spec. Agr.	Route No. 4, at home	Raleigh, N. C.
Harris, Robert P.	Fr. Chem. E.	At home, 220 N. East St.	Raleigh, N. C.
Harris, Tommie M.	Sr. Chem. E.	309 1911, Box 3789	Siler City, N. C.
Harris, Wm. C.	So. E. E.	330 South, Box 3594	Lexington, N. C.
Harrison, John L.	So. A. H.	Highland Ridge Rd.	Blanch, N. C.
Hartsfield, C. G.	Jr. M. E.	203 Chamberlain St.	Wilmington, N. C.
Harvin, T. K.	Fr. C. E.	213 Watauga, Box 3031	Garysburg, N. C.
Hathaway, P. J.	Sr. Acctg.	2612 Clarke Ave.	Creswell, N. C.
Hawkins, C. C.	So. B. Ad.	102 South, Box 3502	Selma, N. C.
Hayes, A. C.			
Hayes, Wm. J.	Sr. E. E.	316 South, Box 3580	Wilmington, N. C.
Haynes, W. E., Jr.	So. Ind. Mgt.	130 Forest Rd.	Raleigh, N. C.
Hayworth, Chas. E.	Fr. Tex. Mfg.	8 Maiden Lane	High Point, N. C.
Hearn, Henry H.	So. B. Ad.	At home, Box 171	Raleigh, N. C.
Hearn, Mary F.	Spec. S. & B.	2207 Breeze Road	Raleigh, N. C.
Hearn, Thos. M.	So. H. S. T.	6 Ferndell Lane	Albemarle, N. C.
Heath, Harry B.	Fr. Tex.	101 Chamberlain St.	Chester, S. C.
Heck, Chas. W.	Sr. Ind. Mgt.	200 Hawthorne Rd. (home)	Raleigh, N. C.
Hedgecock, G. W.	So. Chem. E.	102 Watauga, Box 3002	Winston-Salem, N. C.
Hedgepeth, A. C.	Jr. Chem. E.	2314 Hillsboro St.	Rocky Mount, N. C.
Henderson, Brantley	Fr. For.	108 1911, Box 3708	Williamsburg, Va.

Name	*Classification*	*College Address*	*Home Address*
Henkel, Claude F.	So. Ag. Ed.	226 South, Box 3558	Davidson, N. C.
Henkel, Harry A.	Fr. M. E.	2513 Clarke Ave.	Newport News, Va.
Henry, Chas. F.	So. A. H.	116 Woodburn Rd.	McKees Rocks, Pa.
Henry, John K., Jr.	Jr. Ag. Spec.	116 Woodburn Rd.	McKees Rocks, Pa.
Henry, Wm. C.	Sr. Arch. E.	228 1911, Box 3768	Elizabeth, N. J.
Henry, W. J.	So. B. Ad.	2405 Clark Ave.	Pasadena, Cal.
Herbst, E. A.	So. Cer. E.	1922 Hillsboro St.	Salem, N. H.
Herlocker, V. C.	So. Ag. Ed.	229 1911, Box 3769	Albemarle, N. C.
Herring, I. L.	Sr. Constr. E.	323 1911, Box 3803	Greensboro, N. C.
Herring, T. M.	Fr. C. E.	123 1911, (mail to 103 Chamberlain St.)	Roseboro, N. C.
Hewitt, W. W.	Jr. M. E.	115 Woodburn Rd.	Lexington, N. C.
Hickok, B. T.	So. Arch. E.	327 1911, Box 3807	Wytheville, Va.
Highsmith, John Henry Jr.	Irr. Ed.	At home, 330 W. Hargett	Raleigh, N. C.
Hill, Geo. W.	Jr. B. Ad.	112 6th, Box 3248	Eure, N. C.
Hill, Haywood C.	Fr. B. Ad.	103 6th, Box 3239	Snow Hill, N. C.
Hill, James R.	Fr. Chem. E.	5 College Y. M. C. A.	Greensboro, N. C.
Hill, M. G.	So. B. Ad.	At home, 503 Jefferson	Raleigh, N. C.
Hines, H. B., Jr.	Jr. Min. E.	2232 Hillsboro St.	Manteo, N. C.
Hinson, J. L.	So. Agr. Ed.	6 South, Box 3602	Stanfield, N. C.
Hoaglin Harry L.	Sr. B. Ad.	2513 Clarke Ave.	Albion, Mich.
Hobbs, L. H.	So. For.	305 South, Box 3569	Delco, N. C.
Hockfield, Joe M.	Fr. B. Ad.	305 7th, Box 3371	Durham, N. C.
Hodgin, R. G., Jr.	Fr. Tex.	133 1911, Box 3728	Wilmington, N. C.
Hodnett, F. A.	So. For.	21 Enterprise St.	Chatham, Va.
Hodnett, J. A., Jr.	Jr. B. Ad.	21 Enterprise St.	Chatham, Va.
Hoffman, Arthur F.	So. L. A.	301 7th, Box 3367	Adams, Mass.
Hoffman, Wm. H.	So. L. A.	301 7th, Box 3367	Adams, Mass.
Hoggard, E. S., Jr.	So. Tex.	115 Watauga, Box 3015	Charlotte, N. C.
Holcomb, John D., Jr.	Fr. B. & Sci.	113 Watauga, Box 3013	Yadkinville, N. C.
Holcomb, Sig W.	So. E. E.	2314 Hillsboro St.	Elkin, N. C.
Holder, H. K.	Fr. Chem. E.	At home	Garner, N. C.
Holeman, James B.	Fr. Agr.	317 1911, Box 3797	Roxboro, N. C.
Holland, Ernestine C.	Fr. S. & B.	at home, 518 E. Franklin	Raleigh, N. C.
Holland James G.	So. Chem. E.	2232 Hillsboro St.	Providence, Ky.
Holloway, S. E.	Grad. Chem. E.	2201 Clarke Ave.	Alvis, Va.
Holman, Robt. F., Jr.	So. B. Ad.	209 E. Morgan St.	Snow Camp, N. C.
Holman, Sarah	Sr. H. S. T.	209 E. Morgan St.	Snow Camp, N. C.
Holoman, S. Boyce	Fr. Chem.	At home, 2123 Woodland	Raleigh, N. C.
Holt, Allie H.	Sr. Tex.	1208 College Place	Jalong, N. C.
Holt, Geo. A.	Fr. L. A.	8 Maiden Lane	Burlington, N. C.
Honeycutt, Lillian M.	So. H. S. T.	At home, Route No. 1	Raleigh, N. C.
Hood, Wm. W.	So. For.	123 Woodburn Rd.	Beaver Falls, Pa.
Hornbeck, Geo. A.	Fr. Chem. E.	112 1911, Box 3712	Rocky Mount, N. C.
Horne, K. W.	So. Tex.	102 1911, Box 3741	Mt. Gilead N. C.
Horton, Chas. P.	Jr. H. S. T.	At home, 604 E. Hargett	Raleigh, N. C.
Horton, Frank R., Jr.	Fr. Chem. E.	At home, 311 E. Lane St.	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Horton, George	Grad. Zool.	115 Chamberlain St.	Newbern, Tenn.
Horton. O. M.	So. M. E.	Lives at home, 1408 Hillsboro St.	Raleigh, N. C.
Hostetler, Earl H.	Grad. Agr.	White Oak Road	Raleigh, N. C.
House, D. Murrey	Sr. E. E.	126 1911, Box 3726	Greenville, N. C.
Houston, Wm. Stamps	Sr. Constr. E.	8 Maiden Lane	Monroe, N. C.
Howard, C. C.	Jr. B. Ad.	1312 Hinton St.	Pink Hill, N. C.
Howland, Leland M.	Fr. Chem. E.	314 South, Box 3578	Henderson, N. C.
Huband, W. C., Jr.	Jr. Mktg.	2702 Hillsboro St. (Box 5156 S. C. S.)	Winston-Salem, N. C.
Huddleston, Catherine	Sr. H. S. T.	At home, 8 Glenwood	Raleigh, N. C.
Hudson, R. S.	So. Tex.	At home, 604 Oakwood	Raleigh, N. C.
Hudson, Seaman K.	Fr. For.	At home, 604 Oakwood	Raleigh, N. C.
Hudspeth, Wilma	Jr. H. S. T.	2608 Clark Ave.	Concord, N. C.
Hughes, C. M., Jr.	Jr. Chem. E.	312 Forest Road	Raleigh, N. C.
Hughes, J. B.	So. Tex.	21 Enterprise	Lancaster, S. C.
Hughey, G. E., Jr.	So. San. E.	237 1911, Box 3777	Statesville, N. C.
Hull, J. E.	Grad. Agr. Ec.	8 Ferndell	Washington, N. C.
Humphrey, W. R.	Sr. B. Ad.	110 Sewell Ave. (Box 5472 S. C. S.)	Richlands, N. C.
Hundley, R. H., Jr.	Irr. Tex.	16 Enterprise St.	Leaksville, N. C.
Hunsucker, A. W.	So. Poul.	2230 Hillsboro St.	Hamlet, N. C.
Hunt, Frank P.	Fr. Tex.	315 Watauga, Box 3051	Marion, N. C.
Hunt, Harlowe G.	So. Aero. E.	At home, 114 Horne St.	Raleigh, N. C.
Hunt, James B.	Jr. Agr. Sp.	115 Chamberlain St.	Pleasant Garden, North Carolina
Hunter, J. W.	Jr. E. E.	At home, 516 N. East	Raleigh, N. C.
Hunter, Minor C.	Jr. Tex.	6 Maiden Lane	Charlotte, N. C.
Hunter, M. G.	Sr. Mktg.	At home, 312 Oakwood	Raleigh, N. C.
Hurst, E. L.	Sr. For.	211 Groveland Ave.	Hubert, N. C.
Hurst, Thos. L.	Fr. Cer. E.	210 7th, Box 3342	Leonia, N. J.
Hutchison, F. L.	So. Civ. E.	304 Watauga, Box 3040	Candler N. C.
Hutchison, J. J.	So. Agr.	304 Watauga, Box 3040	Saxapahaw, N. C.
Hyde, Ernest L.	Fr. E. E.	9 Y. M. C. A.	Andrews, N. C.
Ingle, W. W.	Sr Chem. E.	2612 Clark Ave.	Burlington, N. C.
Ingram, Wm. P., Jr.	So. Chem.	115 Chamberlain St.	Shelby, N. C.
Irgens, Oscar K.	So. Chem.	303 5th, Box 3227	Atlantic City, N. J.
Irwin, Hall M., Jr.	Sr. Ar. Eng.	230 1911, Box 3770	Charlotte, N. C.
Isaacs, C. T.	So. M. E.	132 7th, Box 3332	Struthers, Ohio
Isaacs, Glover C.	So. M. E.	1306 Hillsboro St.	Louisville, Ky.
Isenhour, John H.	Sr. Cer.	1710 Hillsboro St.	Salisbury, N. C.
Isenhour, Wm. L., Jr.	Fr. B. Ad.	215 7th, Box 3347	Charlotte, N. C.
Jackson, C. Curtis	Fr. Ed.	112 5th, Box 3212	Dobson, N. C.
Jackson, Gorham E.	Jr. For.	8 Ferndell Lane, Box 5442	Wake Forest, N. C.
Jackson, Geo. G.	Fr. Chem. E.	2509 Vanderbilt Ave.	Elm City, N. C.

Name	Classification	College Address	Home Address
Jackson, Joseph A.	So. B. Ad.	2612 Clark Ave.	Portsmouth, Va.
James, C. J.	Fr. B. Ad.	1720 Hillsboro St.	
James, O. H., Jr.	Fr. For.	106 Watauga, Box 3006	Wallace, N. C.
Jarvis, Kenneth L.	So. Ag. Sp.	222 South, Box 3622	Hertford, N. C.
Jasper, Miss Elizabeth	Grad. Educ.	1508 Hillsboro St.	Raleigh, N. C.
Jay, LeRoy V.	So. B. Ad.	Gym, Box 5212	Raleigh, N. C.
Jeffrey, C. F.	Sr. A. H.	At home, Garner Rd.	Raleigh, N. C.
Jenkins, J. E.	Jr. E. E.	304 6th, Box 3264	Stanley, N. C.
Jenkins, Thos. M., Jr.	Fr. Tex.	101 Chamberlain St.	Roanoke Rpds., N. C.
Jennette, Chas. L., Jr.	So. Tex.	1809 White Oak Road	Raleigh, N. C.
Jennings, John H.	Fr. Chem. E.	121 1911, Box 3721	High Point, N. C.
Jernigan, H. M.	Sr. Ind. Arts	118 1911, Box 3718	Dunn, N. C.
Jewell, Gordon	Fr. H. S. T.	At home	Garner, N. C.
Jivatode, R. S.	Grad. Ed.	2410 Hillsboro St.	Poona City, India
Johansen, Lena Hastings	Spec. Soc.	402 Horne St.	Raleigh, N. C.
Johnson, Alden L.	Fr. Chem. E.	323 7th, Box 3389	New Bedford, Mass.
Johnson, Clarkston E.	Fr. M. E.	202 1st, Box 3107	Liberty, N. C.
Johnson, D. W.	So. Ag. Ed.	15 Maiden Lane	Kerr, N. C.
Johnson, Franklin C.	So. Chem. E.	316 7th, Box 3382	Norlina, N. C.
Johnson, James B.	So. For.	At home, 609 S. Boylan	Raleigh, N. C.
Josnson, Joseph Claiborne	Fr. B. Ad.	At home	Cary, N. C.
Johnson, J. C.			
Johnson, J. W., Jr.	So. H. S. T.	121 7th, Box 3321	Elizabeth City, N. C.
Johnson, R. L.	Sr. B. Ad.	2004 Hillsboro St.	Kipling, N. C.
Johnson, Z. Smith	So. Ag. Ec.	301 5th, Box 3225	Barnesville, N. C.
Johnston, E. Lavelle	So. B. Ad.	2302 Clark Ave.	Quitman, Miss.
Jolly, B. Rush	Tex.	At home, 929 Holt Dr.	Raleigh, N. C.
Jones, Clinton E.	So. A. E.	130 Forest Road	Durham, N. C.
Jones, E. G.	Jr. L. A.	303 South, Box 3567	Fayetteville, N. C.
Jones, Ernest R.	Fr. E. E.		Black Mtn., N. C.
Jones, Fred	Sr. A. H.	13 Polk Hall, Box 5424	Cofield, N. C.
Jones, G. C. Jr.	Sr. Chem. E.	2230 Hillsboro St.	Charlotte, N. C.
Jones, Herman L.	Fr. C. E.	12 Enterprise St.	Nashville, N. C.
Jones, James F.	Fr. Agr. Sp.	16 South, Box 3612	Lakeview, S. C.
Jones, J. N. Jr.	Jr. Chem. E.	326 1911, Box 3806	Wheeling, W. Va.
Jones, Walter B.	Jr. H. S. T.	116 Woodburn Rd.	Fayetteville, N. C.
Jones, W. L.	So. Tex.	1806 Hillsboro St.	Greensboro, N. C.
Jones, Woodrow W.	Fr. B. Ad.	1806 Hillsboro St.	Greensboro, N. C.
Jordan, Geo. M.	So. C. E.	203 Chamberlain St. (home)	Raleigh, N. C.
Jordan, W. T.	Sr. H. S. T.	222 Park Ave.	Hamlet, N. C.
Joyce, W. Y. Jr.	So. B. Ad.	218 Watauga, Box 3036	Leaksville, N. C.
Judd, James L.	Jr. Tex.	6 Enterprise St.	Varina, N. C.
Julien, Lloyd A.	Fr. Ind. Chem.	209 1911, Box 3749	Charlotte, N. C.
Kanto, Wm. P.	Jr. C. E.	8 Ferndell Lane	Youngstown, Ohio
Kautz, Donald C.	Fr. E. E.	308 4th, Box 3134	Somerset, Pa.
Keck, Harrie S.	Fr. B. Ad.	302 W. Whitaker Mill	Grantwood, N. J.

Name	*Classification*	*College Address*	*Home Address*
Keel, Wm. C. Jr.	Sr. Mktg.	1922 Hillsboro St.	Merritt, N. C.
Keith, J. Conway	Fr. Agr. Ed.	203 Chamberlain	Apex, N. C.
Kelly, Franklin B.	Fr. Aero	228 South, Box 3560	Toms River, N. J.
Kelly, J. R.	Sr. Chem. E.	2407 Clark Ave.	Greensboro, N. C.
Kelly, Joseph W.	Grad. Poul.	4 Maiden Lane	Raleigh, N. C.
Kelly, T. F.	So. M. E.	At home, 110 Harrison	Raleigh, N. C.
Kerr, Colin H.	So. B. Ad.	303 1911, Box 3783	Lawrence, Mass.
Kerr, Thos. Jr.	So. B. Ad.	302 7th, Box 3378	Schenectady, N. Y.
Kimrey, A. C. Jr.	Fr. Chem. E.	At home, 522 Oakwood	Raleigh, N. C.
Kimrey, John D.	Fr. M. E.	116 1911, Box 3716	Mebane, N. C.
Kimrey, Willard H.	So. A. H.	318 Watauga, Box 3054	High Point, N. C.
King, E. S.	Grad. Econ.	121 Chamberlain	Raleigh, N. C.
King, J. E.	Sr. Ind. Mgt.	2310 Hillsboro St.	Greensboro, N. C.
King, J. MacLean	Sr. Tex. Mfg.	2702 Hillsboro St. (Box 5156 S. C. S.)	Davidson, N. C.
King, J. U. Jr.	Fr. Cer. E.	340 1911, Box 3820	Wilmington, N. C.
Kinken, P. G.	So. Chem. E.	2405 Clark Ave., (Box 5266 S. C. S.)	Marshalltown, Iowa
Kirk, R. C.	Grad. E. E.	1306 Jackson St. (Box 5223 S. C. S.)	Greensboro, N. C.
Kirkman, Ben. E.	Sr. Constr. E.	2302 Hillsboro St.	Elkin, N. C.
Kirkpatrick, H. Kelton	Fr. For.	116 1911, Box 3716	Swepsonville, N. C.
Kirkpatrick, Hugh Miller	Fr. B. Ad.	116 St. Mary's (home)	Raleigh, N. C.
Kiser, Fred B.	Fr. Agr.	12 Enterprise St.	Lincolnton, N. C.
Kiser, Wm. W.	Fr. M. E.	205 7th, Box 3337	Charlotte, N. C.
Kistler, W. E. Jr.	Jr. M. E.	210 1911, Box 3750	Charlotte, N. C.
Klein, Walter	So. For.	201 7th, Box 3333	Turtle Creek, Pa.
Kline, Frank M.	Sr. B. Ad.	At home, 807 N. Person	Raleigh, N. C.
Kluttz, Ernest Lee, Jr.	Fr. E. E.	10 South, Box 3606	Salisbury, N. C.
Kluttz, Ellen M.	So. H. S. T.	2621 Leesville Rd.	Raleigh, N. C.
Kluttz, W. H.	Sr. B. Ad.	107 6th, Box 3243	Rockwell, N. C.
Knight, C. B.	Fr. Chem E.	2901 Hillsboro St.	Durham, N. C.
Knight, E. S.	So. B. Ad.	324 1911, Box 3804	Warsaw, N. C.
Knott, Chas. F.	Jr. A. E.	314 1911, Box 3794	Durham, N. C.
Knott, Lonnie M. Jr.	Sr. Chem E.	2004 Hillsboro	Wendell, N. C.
Knowles, Abner S.	So. Agr.	2107 Fairview Rd.	Willard, N. C.
Komlos, John S.	Fr. H. S. T.	208 4th, Box 5251	Brookfield, Ohio.
Krach, Kenneth J.	Fr. E. E.	211 South, Box 3543	Baltimore, Md.
Lamb, W. C.	So. Chem E.	323 South, Box 3587	Winston-Salem, N. C.
Lamberson, James W.	Fr. Bus.	318 South, Box 3582	Goldsboro, N. C.
Lamberth, Orion W.	So. Ben. Bus.	211 Woodburn Rd.	
Lambeth, B. S. Jr.	Fr. M. E.	211 6th, Box 3259	Thomasville, N. C.
Lambeth, W. O.	Sr. San. E.	6 Maiden Lane	Thomasville, N. C.
Lambeth, W. W.	So. Tex.	307 South, Box 3571	Brown Summit, N. C.
Lamm, J. D.	Sr. B. Ad.	2230 Hillsboro St.	Wilson, N. C.
Lancaster, Mrs. Grace L.	Spec. Educ.	At home, 208 Forest Rd.	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Lancaster, R. A.	Sr. E. E.	2508 Vanderbilt Ave. (Box 5381 S. C. S.)	Vanceboro, N. C.
Land, James LeGrand	So. Agr.	8 Maiden Lane	Hamlet, N. C.
Landis, Frank O.	Fr. B. Ad.	119 Chamberlain St.	Charlotte, N. C.
Lane, Chas. F.	Jr. Chem. E.	332 South, Box 3596	Rocky Mount, N. C.
LaRoque, O. K., Jr.	Sr. M. E.	At home, 606 N. Blount	Raleigh, N. C.
Lassen, Ernest J.	Jr. M. E.	307 7th, Box 3373	Plainfield, N. J.
Lassiter, J. Y.	So. Agr. Ed.	102 1st, Box 3102	Clayton, N. C.
Latham, Henry H.	So. Chem. E.	103 1st, Box 3103	Washington, N. C.
Lauder, Thomas	Fr. Chem. E.	206 5th, Box 3218	Jamestown, N. C.
Lawrence, F. W., Jr.	So. Tex.	At home, 2301 Lake Dr.	Raleigh, N. C.
Lay, Geo. B.	Grad. Zoöl.	Zoöl. Dept.	Raleigh, N. C.
Layton, Charles S.	Fr. For.	2220 Hillsboro St.	Greensboro, N. C.
Leagans, J. P.	Jr. Ag. Ed.	118 E. Park Drive	Cana, N. C.
Leager, Sam R.	Fr. Bus.	1708 Park Dr. (home)	Raleigh, N. C.
Leavister, John J.	Fr. For.	110 Cox Ave.	Raleigh, N. C.
Ledbetter, F. H.	So. For.	317 Watauga, Box 3053	Marion, N. C.
Lee, Curtis W.	Fr. Min. E.	211 5th, Box 3223	Monroe, N. C.
Lefler, Ida P.	Grad. Educ.	23 Logan Court	Raleigh, N. C.
LeGrande, W. P.	Fr. For.	130 Woodburn Road	Mebane, N. C.
Lempert, J. Louis, Jr.	Fr. Biol.	205 Woodburn Road	Rutherford, N. J.
Lennon, J. E.	So. E. E.	3011 Hillsboro St.	Bolivia, N. C.
LeRoy, J. M.	Sr. C. E.	231 South, Box 3563	Elizabeth City, N. C.
LeRoy, Warren S.	Fr. Chem. E.	127 1911, Box 3727	Goldsboro, N. C.
Lewis, E. C.	So. M. E.	Power Plant	Jamaica, N. Y.
Lewis, Edward H.	Jr. Ind. Arts	At home, 1320 Hillsboro	Raleigh, N. C.
Lewis, Finley G.	So. Agr. Ed.	13 South, Box 3609	Roper, N. C.
Lewis, J. G.	Grad. Tex.	123 Brooks Ave. (Box 5274 S C S.)	Fairmont, N. C.
Lewis, J. H.	Jr. Tex.	204 Watauga, Box 3022	Winston-Salem, N. C.
Lewis, Robt. E., Jr.	Fr. Chem. E.	301 1911, Box 3781	Elizabeth City, N. C.
Lienar, Jessie A.	Fr. Ed.	At home	Apex, N. C.
Lightfoot, E. R.	Fr. Bus.	At home, 1709 Hillsboro	Raleigh, N. C.
Liles, J. B.	So. M. E.	At home, 709 W. Lane	Raleigh, N. C.
Liles, Jesse S.	Fr. Ag. Ed.	224 N. McDowwell St.	Littleton, N. C.
Liles, L. C.	Fr. H. S. T.	1408 Hillsboro St., (R. L. Horton)	Zebulon, N. C., R. 1
Liles, Percy W.	Fr. Chem. E.	320 South, Box 3584	Wilmington, N. C.
Lindstrom, J. H., Jr.	Sr. L. A.	134 Woodburn Rd.	East Orange, N. J.
Lingerfelt, C. C.	So. Ed.	107 1911, Box 3721	Bessemer City, N. C.
Link, E. Harriet	Jr. Educ.	At home, 801 New Bern	Raleigh, N. C.
Lippard, A. R.	Sr. C. E.	134 1911, Box 3734	Salisbury, N. C.
Litchfield, H. B.	Fr. Physics	602 N. Bloodworth St. (Box 5174, S. C. S.)	Creswell, N. C.
Litchford, James O.	Sr. C. E.	130 Forest Road	Neuse, N. C.
Litniansky, W. C.	So. E. E.	229 7th, Box 3361	Brooklyn, N. Y.
Little, Marcus L.	Irr. Chem. E.	304 1911, Box 3784	Hickory, N. C.

Name	*Classification*	*College Address*	*Home Address*
Litvin, Isadore S.	Fr. Chem. E.	230 7th, Box 3362	Lindenhurst, N. Y.
Lloyd, A. S.	So. E. E.	206 South, Box 3538	Charlotte, N. C.
Lloyd, C. H., Jr.	Fr. B. Ad.	131 South, Box 3531	Spencer, N. C.
London, Rufus, Jr.	Fr. Chem. E.	201 1911, Box 3747	Rock Hill, S. C.
Long, J. J., Jr.	So. B. Ad.	1710 Hillsboro St., (Box 5065 S. C. S.)	Edenton, N. C.
Long, John P.	Soph. L. A.	111 1911, Box 3711	Jackson, N. C.
Loomis, Wayland E.	Fr. C. E.	214 7th, Box 3346	Bloomfield, Conn.
Loughlin, Chas. E.	Fr. Chem. E.	16 South, Box 3612	Wilmington, N. C.
Lowder, C. O., Jr.	So. E. E.	329 1911, Box 3809	Charlotte, N. C.
Lowery, S. L.	Sr. Ag. Ed.	310 7th, Box 3376	Trenton, N. C.
Lowrance, E. J.	Jr. A. E.	204 First, Box 3109	Charlotte, N. C.
Loy, W. L., Jr.	Jr. Tex. Mfg.	2612 Clark Ave.	Creedmoor, N. C.
Lukens, Joseph W.	Fr. M. E.	317 7th, Box 3383	Norfolk, Va.
Lumpkin, LeRoy	Jr. Chem. E.	2715 Vanderbilt Ave.	Winston-Salem, N. C.
Lunsford, B. L.	Jr. Ag. Ed.	1809 Sunset Ave.	Leicester, N. C.
Lupton, C. C.	So. B. Ad.	208 Fifth, Box 3220	Vandemere, N. C.
Lutz, J. A., Jr.	So. Agr.	1507 Hillsboro St.	Newton, N. C.
Lyday, L. F., Jr.	Jr. B. Ad.	305 5th, Box 3229	Brevard, N. C.
Lyerly, H. A.			
Lyerly, R. F.	Sr. M. E.	2513 Clark Ave.	Granite Quarry, N. C.
Lynch, Charles E.	Fr. Chem. E.	128 1911, Box 3728	Wilmington, N. C.
Lynch, Herbert, A., Jr.	Jr. Chem. E.	Gym. No. 3	Wilmington, N. C.
Lynch, S. C.	Jr. E. E.	2508 Vanderbilt Ave.	Mebane, N. C.
Lynch, W. E.	Sr. B. Ad.	2612 Clark Ave.	Snow Hill, N. C.
Lynn, Iowa H.	Jr. B. Ad.	At home, Rt. 6, (Box 5514 S. C. S.)	Raleigh, N. C.
Lynn, J. J., Jr.	Fr. Forestry	At home, M. E. Orphanage Farm	Raleigh, N. C.
Lynn, Wm. M.	Fr. H. S. T.	At home, Rt, 6, Box 5514 S. C. S.	Raleigh, N. C.
Lyon, H. L., Jr.	So. E. E.	107 South, Box 3507	Oxford, N. C.
McAdams, R. T.	Fr. Bus.	207 4th, Box 5212	Spring Valley, Ill.
McAfee, Don	Fr. Ed.	At home, 1425 Scales	Raleigh, N. C.
McArthur, Geo. J.	Fr. E. E.	130 1911, Box 3730	Rocky Mount, N. C.
McBrayer, John Albert	Fr. E. E.	301 4th, Box 3127	Lattimore, N. C.
McCall, J. D. Jr.	Sr. Ar. Eng.	At home, 213 S. Bloodworth St.	Raleigh, N. C.
McCanless, Daniel A.	Fr. E. E.	107 Watauga, Box 3007	Asheville, N. C.
McCarn, E. S.	Jr. M. E.	216 South, Box 3548	Spencer N. C.
McClung, H. A. Jr.	Sr. E. E.	2302 Hillsboro St.	Charleston W. Va.
McColl, Geo. R.	Fr. Ag. Ed.	202 South, Box 3534	Wade, N. C.
McCollum, Paul Wm.	Jr. Tex. Mfg.	6 Maiden Lane	Wentworth, N. C.
McConnell, B. M.	Sr. Tex.	8 Maiden Lane	Fayetteville, N. C.
McCormick, J. C. Jr.	So. Tex.	1810 Park Drive	Laurinburg, N. C.
McCraney, W. Relmond	Fr. C. E.	305 4th, Box 3131	Vass, N. C.
McCullen, W. H.	Soph. B. Ad.	210 Watauga, Box 3028	Faison, N. C.

Name	*Classification*	*College Address*	*Home Address*
McCullers, O. S.	So. M. E.	207 7th, Box 3339	Durham, N. C.
McCullers, Ruth	Fr. H. S. T.	At home	Garner, N. C.
McCulley, L. H.	So. Ed.	116 Woodburn Rd. (Box 5224 S. C. S.)	Lenoir, N. C.
McCullough, Robt. J.	Sr. Chem E.	2612 Clarke Ave.	Chicopee, Mass.
McDavid, Jas. E.	Fr. San. E.	106 Horne St.	Sanford, N. C.
McDonald, Hazel	Sr. H. S. T.	At home, 315 Kinsey St.	Raleigh, N. C.
McDonald, Mary Hugh	Sr. H. S. T.	At home, 315 Kinsey St.	Raleigh, N. C.
McDowell, Edw. D. Jr.	Fr. Ind. Eng.	120 1911, Box 3720	Goldsboro, N. C.
McEvoy, Raymond X.	So. B. Adm.	College Court Apts. 1	Waterbury, Conn.
McGhee, Thos. J.	Jr. Soils	At home	Franklinton, N. C.
McGirt, Jack	Fr. B. Ad.	106 5th, Box 3206	Fairmont, N. C.
McGoogan, F. A.	Sr. M. E.	8 Ferndell Lane, Box 5323	Rennert, N. C.
McGowen, E. D.	So. E. E.	202 6th, Box 3250	Turkey, N. C.
McGowen, W. B. Jr.	Jr. Ind. Mgt.	202 6th, Box 3250	Turkey, N. C.
McIntyre, John E.	So. B. Ad.	Avent Ferry Road	Raleigh, N. C.
McKeithan, Robt. S.	So. Chem. E.	5 South Dorm, Box 3601	Wilmington, N. C.
McKenzie, Howard G.	So. M. E.		Gastonia, N. C.
McKenzie, M. R.	Sr. B. Ad.	5 South Dorm	Candor, N. C.
McKenzie, Tom J.	Jr. Geol.	234 1911, Box 3774	Asheville, N. C.
McKinney, Frank H.	So. B. Ad.	326 South, Box 3590	Mt. Airy, N. C.
McKinney, Wade R.	So. M. E.	326 South, Box 3590	Mt. Airy, N. C.
McKinnon, S. H.	So. Chem. E.	206 South, Box 3538	Maxton, N. C.
McLain, W. R.	So. Cer. E.	205 5th, Box 3217	Statesville, N. C.
McLaughlin, R. A.	Sr. A. H.	13 Polk Hall, Box 5193	Mt. Ulla, N. C.
McLaurin, James T.	So. A. H.	1810 Park Drive	High Point, N. C.
McLawhorn, Harvey D.	Sr. Agr. Econ.		
McLawhorn, Herman R. Jr.	Fr. Arch. E.	315 South, Box 3579	Wilson, N. C.
McLean, Jean	Spec. B. Ad.	2251 Circle Drive	Raleigh, N. C.
McLean, J. C.	Sr. B. Ad.	Rt. 4, Phone 3233-R	Lincolnton, N. C.
McLendon, Walter J.	Fr. Biol.	119 South, Box 3519	Kenansville, N. C.
McLeod, W. L.	Jr. Ag. Sp.	13 W. Dixie Drive	Vass, N. C.
McLoud, Melvin R.	Fr. M. E.	221½ Forest Road	Troy, N. C.
MacMillan, Mayer	Fr. Bus.	1718 Hillsboro St.	Teachey, N. C.
McNairy, R. W.	So. For.	212 6th, Box 3260	Greensboro, N. C.
McPherson, S. Clements	Fr. M. E.	1707 Park Drive	Burlington, N. C.
McQuage, J. A.	Fr. For.	4 Y. M. C. A.	McColl, S. C.
McQuage, Robt. J.	Jr. B. Ad.	103 Chamberlain St., (Box 5241 S. C. S.)	Salisbury, N. C.
McQueen, John H.	Fr. M. E.	333 1911, Box 1813	Greensboro, N. C.
McQueen, N. H.	Jr. Agr. Ec.	2405 Clarke Ave. (Box 5366 S. C. S.)	Punta Gorda, Fla.
Madry, James P.	Sr. Bus.	108 4th, Box 3118	Scotland Neck, N. C.
Madry, J. W. Jr.	Jr. C. E.	308 1911, Box 3788	Scotland Neck, N. C.
Maneri, C. J.	So. San. Eng.	105 South, Box 3505	Poughkeepsie, N. Y.
Maness, W. C.	Sr. A. H.	13 W. Dixie Dr.	McConnell, N. C.

Name	*Classification*	*College Address*	*Home Address*
Mann, Edmund S.	Jr. B. Ad.	130 Forest Rd.	Lake Landing, N. C.
Mann, W. R.	Fr. M. E.	203 1911, Box 3743	Whitakers, N. C.
Marchese, Anthony S.	Sr. Constr. E.	105 South, Box 3505	Poughkeepsie, N. Y.
Margolis, Nat.	Fr. M. E.	905 New Bern Ave.	Brooklyn, N. Y.
Margulies, Jesse	Fr. M. E.	905 New Bern Ave.	Raleigh, N. C.
Marks, J. R. Jr.	Fr. Constr. E.	214 1911, Box 3754	Whitakers, N. C.
Marsh, James A.	So. Agr.	106 Horne St., Box 5381	Monroe, N. C.
Martin, Laurence Alfred	So. C. E.	1922 Hillsboro St.	Nyack, N. Y.
Mason, J. Harold	Fr. Chem. E.	131 1911, Box 3731	Lowell, N. C.
Mason, R. E.	Sr. Ind. Mgt.	104 Harrison (home)	Raleigh, N. C.
Massengill, L. A.	Sr. Poultry	Poultry Plant	Four Oaks, N. C.
Massey, L. N. Jr.	So. Chem. E.	At home, 531 New Bern	Raleigh, N. C.
Mathews, H. E. Jr.	So. Biol.	206 Chamberlain St.	Portsmouth, Va.
Mathews, J. H.	Jr. M. E.	308 5th, Box 3232	Clinton, N. C.
Mathews, T. G.	Jr. Tex.	206 Chamberlain St.	Saluda, N. C.
Matlack, Girdler	Jr. H. S. T.	130 Woodburn Rd.	Louisville, Ky.
Matthews, Mary E.	Fr. H. S. T.	At home, 507 N. Wilmington St.	Raleigh, N. C.
Matthews, W. P.	Sr. Chem.	At home, 507 N. Wilmington St.	Raleigh, N. C.
Mauney, J. S.	Fr. Tex.	1306 Hillsboro St.	Kings Mtn., N. C.
May, R. L.	Jr. Dairying	At home, Route 3	Raleigh, N. C.
May, Emanuel, Jr.	Jr. Tex.	214 Watauga, Box 3032	Burlington, N. C.
Maynard, C. D., Jr.	Fr. M. E.	At home	Apex, N. C.
Maynard, Elizabeth	Fr. Ed.	557 New Bern Ave.	Raleigh, N. C.
Meacham, Arthur L.	Sr. Ag. Ed.	115 Park Ave.	Ellerbe, N. C.
Meacham, F. B.	Grad. Zoöl.	2716 Everett	Raleigh, N. C.
Meacham, H. L.	So. A. H.	At home, Highland Ridge Road, (Box 5242, S. C. S.)	Raleigh, N. C.
Meares, Thos. H.	So. Cer. Eng.	208 Watauga, Box 3026	McBee, S. C.
Meekins, Marvin H.	Fr. M. E.	307 5th, Box 3231	Wanchese, N. C.
Meikle, J. R.	Jr. Tex.	2230 Hillsboro St.	Roanoke Rpds., N. C.
Memmert, J. W.	Jr. Chem. E.	2509 Vanderbilt Ave.	Nazareth, Pa.
Mendez, Rafael R.	Irr. Engr.	125 South, Box 3525	Lorez, Puerto Rico
Mercer, C. D.	Fr. B. Ad.	110 6th, Box 3246	Chadbourn, N. C.
Meredith, S. O., Jr.	So. M. E.	2230 Hillsboro St.	Hamlet, N. C.
Meroney, Raymond	Jr. M. E.	2310 Hillsboro St.	Greensboro, N. C.
Merritt, B. G.	Jr. M. E.	1618 Hillsboro (home)	Raleigh, N. C.
Merritt, W. W.	So. C. E.	1618 Hillsboro St.	Wilmington, N. C.
Meyer, George P.	Sr. Chem.	2612 Clark Ave.	Norfolk, Va.
Michael, H. T.	So. Chem. E.	115 Chamberlain St.	Pleasant Gard., N. C.
Middleton, Henry M., Jr.	Fr. E. E.	14 Enterprise St.	Warsaw, N. C.
Middleton, J. M.	Jr. Tex.	6 Maiden Lane	Blakely, Ga.
Miller, B. C.	Sr. M. E.	1710 Hillsboro St.	Albemarle, N. C.
Miller, Joseph A., Jr.	So. M. E.	132 South, Box 3532	Brevard, N. C.
Miller, J. T.	Fr. Chem. E.	1710 Hillsboro St.	Albemarle, N. C.
Miller, James W., Jr.	Irr. For.	229 South, Box 3561	Albemarle, N. C.

Name	*Classification*	*College Address*	*Home Address*
Millner, W. C.	Grad. Ed.	2201 Clark Ave.	Ebony, Va.
Mims, Allen Lester	Fr. S&B	307 4th, Box 3133	Rocky Mount, N. C.
Mintz, Colon	Jr. Agr. Spec.	217 Watauga Hall, Box 3035	Shallotte, N. C.
Mintz, H. F., Jr.	Jr. Mktg.	3011 Hillsboro St.	Bolivia, N. C.
Mintz, LeRoy	So. B. Ad.	3011 Hillsboro St.	Shallotte, N. C.
Mitchiner, W. A.	So. B. Ad.	At home, Box 5281	Franklinton, N. C.
Moen, Mrs. Grace Z.	Spec. H. S. T.	At home, 3202 Clark	Raleigh, N. C.
Moody, W. F., Jr.	So. M. E.	At home, 619 E. Hargett	Raleigh, N. C.
Moore, C. H.	So. M. E.	At home, 503 Polk St.	Raleigh, N. C.
Moore, Elbert L.	Fr. Agr. Ec.	1214 Col. Pl., Box 5383	Hurdle Mills, N. C.
Moore, G. Felix	Fr. Agr. Ed.	At home	Cary, N. C.
Moore, Joseph D.	Fr. For.	312 6th, Box 3272	N. Wilkesboro, N. C.
Moore, J. L.	Grad. A. H.	At home, 34 Shepherd, Box 5263, S. C. S.	Raleigh, N. C.
Moore, L. W.	Jr. B. Ad.	1710 Hillsboro St.	Wilmington, N. C.
Moore, R. R.	Sr. B. Ad.	210 Watauga, Box 3028	Burgaw, N. C.
Moore, Wendell R.	Fr. E. E.	201 South, Box 3533	Greensboro, N. C.
Moorman, Wynant C.	Jr. M. E.	Gymnasium, Box 5463	Clifton, N. J.
Moorah, D. W., Jr.	So. Arch. E.	330 1911, Box 3810	Greensboro, N. C.
Mooris, H. P.	Jr. Mktg.	121 N. Person St.	Columbia, N. C.
Morris, J. A.	Sr. H. S. T.	130 Woodburn Rd.	Raleigh, N. C.
Morris, Thomas J.	So. Tex.	209 Watauga, Box 3027	Colerain, N. C.
Morrow, Robt. P.	Jr. Bus.	225 1911, Box 3765	Charlotte, N. C.
Moser, Earl H., Jr.	So. C. E.	117 South, Box 3517	Zebulon, N. C.
Moses, Maury H.	Jr. Agr. Spec.	222 Park Ave.	Chatham, Va.
Moss, L. A.	Sr. Chem. E.	118 N. Wilmington	Albemarle, N. C.
Mott, T. A., Jr.	Grad. Tex.	130 Forest Rd.	Hickory, N. C.
Mullen, James	Jr. Voc. Agr.	209 5th, Box 3221	Drum Hill, N. C.
Mullen, J. G.	So. E. E.	301 South, Box 3565	New Bern, N. C.
Mullen, Joe H.	Jr. B. Ad.	620 Hillsboro St.	Spring Hope, N. C.
Mullen, R. C.	So. For.	310 1911, Box 3790	Lincolnton, N. C.
Mumford, Graves R.	Sr. Chem. E.	308 Chamberlain St.	Ayden, N. C.
Murdoch, Robert Bruce	Fr. Tex.	227 7th, Box 3359	Salisbury, N. C.
Murphy, Lionel D.	Sr. Const. E.	135 1911, Box 3735	Davis, N. C.
Murray, H. M.	Sr. M. E.	1710 Hillsboro St.	Greensboro, N. C.
Murray, Raymond A.	Fr. Const. E.	208 6th, Box 3256	Linden, N. J.
Muse, Reuben E.	Jr. B. Ad.	203 6th, Box 3262	Pamlico, N. C.
Myatt, W. A., Jr.	So. Bus. Ad.	At home, 11 E. Lane St.	Raleigh, N. C.
Nail, Franklin R.	Sr. M. E.	1306 Hillsboro St.	Salisbury, N. C.
Nanney, B. G.	Jr. Chem. E.	211 Hawthorne Rd.	Black Mt., N. C.
Nealeans, Vann A.	Fr. B. Ad.	108 1911, Box 3708	Goldsboro, N. C.
Nease, Allen	Fr. For.	307 South, Box 3571	Savannah, Ga.
Nelms, G. Allen	Sr. Bus.	113 Brooks, Box 5094	Wilson, N. C.
Nelson, Geo. Chapman	Sr. Ind. Mgt.	1710 Hillsboro St., (Box 5065 S. C. S.)	Washington, N. C.
Nesbit, W. B.	Sr. Poul.	Maiden Lane, Box 5191	Waxhaw, N. C.
Nesbitt, Ben F.	Jr. H. S. T.	104 First, Box 3104	Fairview, N. C.

Name	*Classification*	*College Address*	*Home Address*
New, William	Jr. C. E.	217 1911, Box 3757	Waynesville, N. C.
Newbold, N. C., Jr.	Jr. C. E.	At home, 129 W. Park	Raleigh, N. C.
Newcomb, Fred D.	Fr. Chem. E.	128 1911, Box 3728	Wilmington, N. C.
Newcomb, Geo. D.	Jr. Chem. E.	225½ Forest Rd.	Wilmington, N. C.
Newnham, F. N.	So. For.	At home, 2130 Country Club Drive	Raleigh, N. C.
Newsome, Joe L.	Fr. E. E.	132 1911, Box 3732	Fremont, N. C.
Newton, A. C.	Sr. C. E.	1710 Hillsboro St.,	Charlotte, N. C.
Nicholson, Geo. M.	Fr. Irr. E. E.	107 6th, Box 2307	East Bend, N. C.
Nicholson, J. Thelbert	Fr. Chem. E.	2702 Hillsboro St.	Winston-Salem, N. C.
Nicholson, Russell C.	Fr. Cer. E.	At home, Lake Drive	Raleigh, N. C.
Nicholson, Robert L.	Fr. For.	306 Horne St.	Graham, N. C.
Nickau, Robt. H.	Fr. Biol.	319 7th, Box 3385	Rahway, N. J.
Nims, Rufus Henderson	Jr. Arch. E.	320 1911, Box 3800	Greenville, N. C.
Nolen, Chas. C.	Jr. B. Ad.	305 5th, Box 3229	Stoneville, N. C.
Norlander, Chas. D., Jr.	Fr. Chem. E.	213 South, Box 3545	New Bedford, Mass.
Norris, Reginald	So. M. E.	312 South, Box 3576	Gastonia, N. C.
Nuckolls, Geo. T. L.	So. L. A.	116 Woodburn Rd.	Vigor, Va.
Nycum, J. F.	Jr. Aero.	103 Chamberlain St.	Durham, N. C.
Nye, Glenn C.	Sr. M. E.	2513 Clark Ave.	Blowing Rock, N. C.
Oakden, Walter M.	Fr. For.	120 7th, Box 3320	New York, N. Y.
O'Brian, Joseph M.	Fr. M. E.	9 South, Box 3605	Oxford, N. C.
Obst, Paul M.	Fr. For.	302 6th, Box 3262	Union City, Conn.
Odom, E. G., Jr.	Sr. Ag. Ed.	2314 Hillsboro St.	Gibson, N. C.
Ogden, Chas. H., Jr.	Sr. Tex.	104 Watauga, Box 3004	Charlotte, N. C.
O'Kelley, W. M.	So. B. Ad.	134 Woodburn (home)	Raleigh, N. C.
Oldham, G. C.	So. Const. E.	235 1911, Box 3775	Wilmington, N. C.
Oldham, Geo. W.	Sr. Tex. Mfg.	516 Daughtridge St.	Durham, N. C.
Oliver, A. S., Jr.	Fr. Biol.	2109 Ridgecrest Rd., (home)	Raleigh, N. C.
Oliver, Doc R.	So. B. Ad.	130 Forest Rd.	Pine Level, N. C.
Oliver, Harvey W.	So. For.	338 1911, Box 3818	Princeton, N. C.
Oliver, Louis A., Jr.	Fr. Arch. E.	323 W. Morgan (home)	Raleigh, N. C.
Orr, J. A., Jr.	Grad. Phys.	101 Chamberlain St.	Richburg, S. C.
Osborne, Thos. F.	Fr. Agr.	204 5th, Box 3216	Fletcher, N. C.
Outterbridge, A. W.	Sr. B. Ad.	211 Groveland Ave.	Oak City, N. C.
Overcast, B. C.	Fr. H. S. T.	116 Brooks, Box 5312	Independence, Mo.
Owens, A. L.	Fr. B. Ad.	1922 Hillsboro, Box 5565	Plymouth, N. C.
Owens, C. W., Jr.	So. Cer. E.	203 1st, Box 3108	Black Creek, N. C.
Owens, Otto P.	Sr. Ag. Ed.	115 Park Ave., (Box 5416 S. C. S.)	Ellenboro, N. C.
Page, J. M., Jr.	So. Arch. E.	At home, 410 Kinsey St.	Raleigh, N. C.
Palm, Clifton H.	Jr. B. Ad.	1720 Hillsboro St.	Mt. Vernon, N. Y.
Paramore, Lee Roy	Grad. Agr. Ec.	106 Horne St., Box 5636	Vanceboro, N. C.
Parker, C. M.	Jr. Tex.	306 5th, Box 3232	Brevard, N. C.
Parker, Dalton M.	Fr. For.	331 1911, Box 3811	Corapeake, N. C.

Name	*Classification*	*College Address*	*Home Address*
Parker, Eunice	So. H. S. T.	1026 Cowper Dr.	Marshville, N. C.
Parker, E. E.	Jr. B. Ad.	At home, 126 N. McDowell St.	Raleigh, N. C.
Parks, Charlie C.	Sr. B. Ad.	313 Watauga, Box 3049	Lexington, N. C.
Parks, James M.	Grad. Fld. Crops	2004 Hillsboro St., (Box 5155 S. C. S.)	Raleigh, N. C.
Parrott, John A.	Fr. M. E.	21 Enterprise St.	Kinston, N. C.
Partel, Frank J.	So. H. S. T.	2702 Hillsboro St.	Palmerton, Pa.
Pastore, Pat N.	So. Aero.	222 Cox Ave.	Newark, N. J.
Pate, Wm. M.	So. M. E.	303 Hawthorne Rd.	Raleigh, N. C.
Paterson, H. T., Jr.	So. C. E.	2405 Clark Ave.	Wilmington, N. C.
Paterson, R. C.	So. C. E.	2405 Clark Ave.	Wilmington, N. C.
Patrick, James T.	Fr. E. E.	121 N. Blount St.	Bahama, N. C.
Patrick, R. L.	So. E. E.	101 5th, Box 3201	Mackeys, N. C.
Patton, Chas. R.	Jr. M. E.	203 South, Box 3535	Franklin, N. C.
Payne, T. D., Jr.	Fr. A. E.	215 7th, Box 3347	Charlotte, N. C.
Peacock, L. F.	Fr. Bus.	106½ N. Person St.	Raleigh, N. C.
Pearce, Mary Sue	Fr. H. S. T.	At home, 504 N. East St.	Raleigh, N. C.
Pearson, A. K.	So. M. E.	302 South, Box 3566	N. Wilkesboro, N. C.
Pearson, Irwin	Fr. H. S. T.	312 7th, Box 3378	Guttenberg, N. J.
Pearson, Nat D.			
Pech, W. M., Jr.	So. M. E.	205 7th, Box 3337	Wilmington, N. C.
Peel, J. Woolard	So. B. Ad.	312 Watauga, Box 3048	Everetts, N. C.
Peery, Donald Lee	Fr. Educ.	At home, 217 Hawthorne Rd.	Raleigh, N. C.
Peiffer, F. W., Jr.	Jr. Chem. E.	222 1911, Box 3762	Wilmington, N. C.
Pender, L. Dow, Jr.	Fr. B. Ad.	At home, 31 Shepherd St.	Raleigh, N. C.
Penland, John A.	Sr. A. H.	15 Maiden Lane	Weaverville, N. C.
Penney, Geo. V.	Sr. M. E.	At home, Route 1	Raleigh, N. C.
Perkins, David R.	Fr. Ind. Chem.	207 5th, Box 3219	Marshville, N. C.
Perlmutter, Frank L.	Jr. Ag. Sp.	234 7th, Box 3364	Newark, N. J.
Perlstein, David	Fr. Biol.	807 N. Person St.	Newark, N. J.
Perry, Gerald T.	Sr. Chem. E.	at home, 2809 Bedford Ave.	Raleigh, N. C.
Perry, Horace G., Jr.	Fr. E. E.	2232 Hillsboro St.	Wallace, N. C.
Perry, W. C.	So. B. Ad.	118 Watauga, Box 3018	Durham, N. C.
Peterson, Arnold	So. L. A.	207 4th, Box 5212	Batavia, Ill.
Peterson, B. A.	Sr. Ag. Ed.	3306 Hillsboro	Clinton, N. C.
Petroff, Boris B.	Sr. Hwy. E.	234 1911, Box 3774	Stamford, Conn.
Pettigrew, G. W.	Sr. For.	108 Horne St.	Florence, S. C.
Petty, A. Worth	Jr. San. E.	219 1911, Box 3759	Portsmouth, Va.
Phelps, John Y.	Spec. Bus. Adm.	6 South, Box 3602	Louisburg, N. C.
Phibbs, Edward J., Jr.	Fr. Chem. E.	121 1911, Box 3721	High Point, N. C.
Phillips, L. B.	Spec. Bus. Adm.	No. 5, College Ct. Apts.	Cameron, N. C.
Phillips, W. K., Jr.	Jr. M. E.	2220 Hillsboro St.	Henderson, N. C.
Pickerrell, C. D.	Jr. A. H.	13 Polk Hall	Wilmington, N. C.
Pickett, A. M.	So. A. H.	Dairy House, Box 5193	Magnolia, N. C.

Name	*Classification*	*College Address*	*Home Address*
Pierce, Kathryn S.	So. H. S. T.	at home, 1304 Jackson St.	Raleigh, N. C.
Pierce, Walter Henry	Fr. Agr. Ec.	104 Logan Court	Whiteville, N. C.
Pindell, Richard S.	So. Tex.	103 Chamberlain St.	Glenwood, Md.
Pippin, James A.	So. For.	220 7th, Box 3352	Washington, N. C.
Pittman, J. H.	So. Biol.	222 Park Ave., Box 3022	Clarendon, N. C.
Pittman, J. K.	So. Tex.	204 Watauga, Box 3022	Clarendon, N. C.
Pittman, Mildred	Jr. Educ.	at home, 1408 Sycamore St.	Raleigh, N. C.
Pittman, Richard M.	Fr. Chem. E.	226 1911, Box 3766	Rocky Mount, N. C.
Pitts, Philip H.	Fr. Tex.	1720 Hillsboro St.	Glen Alpine, N. C.
Plaster, Donald C.	Jr. For.	115 Forest Rd.	Winston-Salem, N. C.
Pleasant, R. C.	Sr. Soils	102 1st, Box 3102	Angier, N. C.
Pleasants, Bertha V.	Fr. Educ.	at home	Cary, N. C.
Pleasants, J. L., Jr.	Sr. E. E.	1718 Hillsboro St. (Box 5428 S. C. S.)	Lexington, N. C.
Plonk, H. S.	Jr. Tex.	1306 Hillsboro St.	Kings Mtn., N. C.
Poliseo, Joseph	Sr. E. E.	310 South, Box 3574	Newark, N. J.
Pollock, Carlton A.	Fr. M. E.	226 7th, Box 3358	Kinston, N. C.
Pollock, J. G.	Grad. Agron.	120 Woodburn Rd.	Warsaw, N. C.
Ponzer, Jno. L.	So. E. E.	328 1911, Box 3808	Elizabethtown, N. C.
Ponzer, Karl L.	Sr. E. E.	328 1911, Box 3808	Elizabethtown, N. C.
Poole, Daniel R.	So. Ag. Ed.	8 Ferndale Lane	Ellerbe, N. C.
Poole, E. R.	Grad. Ed.	508 S. West St.	Raleigh, N. C.
Poole, R. S.	Jr. B. Ad.	1922 Hillsboro St.	Washington, D. C.
Poovey, Robt. Lee, Jr.	So. Tex.	216 1911, Box 3756	Statesville, N. C.
Pope, Henry Herbert, Jr.	Fr. B. Ad.	307 Watauga, Box 3043	Robersonville, N. C.
Porter, F. L.	Fr. B. Ad.	227 South, Box 3559	Ellenboro, N. C.
Porter, I. M., Jr.	Fr. B. Ad.	at home, 700 N. East St.	Raleigh, N. C.
Porter, J. E.	So. Chem. E.	at home, 700 N. East St.	Raleigh, N. C.
Porter, J. A., Jr.	Jr. Tex.	105 Watauga, Box 3005	Rockingham, N. C.
Porter, Wm. M.	So. Constr. E.	1710 Park Drive	Charlotte, N. C.
Poteet, Russell L.	Fr. Chem. E.	103 1911, Box 3703	Bramwell, W. Va.
Pou, J. F.	So. C. E.	106 Logan Court	Winston-Salem, N. C.
Pounds, J. C., Jr.	So. M. E.	107 4th, Box 3117	Concord, N. C.
Powell, James F., Jr.	Fr. M. E.	at home, 206 Pine St.	Raleigh, N. C.
Powell, Ralph R.	Fr. Bus.	at home, 206 Pine St.	Raleigh, N. C.
Powell, W. B.	So. E. E.	226 South, Box 3558	Wallace, N. C.
Poyner, J. M.	Jr. Chem. E.	at home, 202 Groveland Ave.	Raleigh, N. C.
Pratt, Russell O.	Fr. S. and B.	126 Woodburn Road	Rural Hall, N. C.
Price, N. F.	Jr. C. E.	8 Ferndell Lane, Box 5323	Whiteville, N. C.
Price, William	So. E. E.	111 Watauga, Box 3011	Burlington, N. C.
Pritchard, W. D.	Sr. Ind. Mgt.	316 Watauga, Box 3052	High Point, N. C.

Name	*Classification*	*College Address*	*Home Address*
Proctor, Wm. T.	So. Agr.	2107 Fairview Road	Rocky Mount, N. C.
Propst, Carl A.	So. Bus.	201 4th, Box 3119	Concord, N. C.
Propst, Earl W.	So. B. Ad.	201 4th, Box 3119	Concord, N. C.
Prout, C. T., Jr.	Jr. For.	117 Woodburn Road	Owings, Md.
Provins, C. G.	Fr. M. E.	212 7th, Box 5224	Masontown, Pa.
Purdy, L. W.	Irr. Chem. E.	2304 Hillsboro St.	Oriental, N. C.
Purser, Graham J.	So. Agr. Ed.	at home, Rt. 1	Garner, N. C.
Pye, Wm. A.	So. B. Ad.	233 7th, Box 3665	Southern Pines, N. C.
Quay, F. C.	Jr. B. Ad.	2612 Clark Ave., (Box 5417 S. C. S.)	Harrisburg, N. C.
Quincey, Robt.	Fr. Aero.	325 1911, Box 3805	Whitakers, N. C.
Raber, Thos. J.	Jr. M. E.	1922 Hillsboro St.	Haddonfield, N. J.
Rackley, W. A.	So. B. Ad.	324 South, Box 3588	Wilmington, N. C.
Radi, M. H.	Sr. Agr.	114 1911, Box 3714	Cairo, Egypt
Raiford, P. B.	Fr. M. E.	J. J. Fyne, Bedford Ave.	Seven Springs, N. C.
Raines, Norman	Fr. Educ.	118 7th, Box 3318	New York, N. Y.
Ramsey, Clyde M.	Fr. M. E.	at home, 3 Hope St.	Raleigh, N. C.
Ramsey, David B., Jr.	Sr. C. E.	at home, 3 Hope St.	Raleigh, N. C.
Ramsey, John A.	Jr. Chem. E.	302 4th, Box 3128	Salisbury, N. C.
Ramsey, Dennis Woodrow	So. M. E.	423 Fayetteville St.	Wendell, N. C.
Ramseur, Fred H., Jr.	Fr. Chem. E.	129 1911, Box 3029	Lincolnton, N. C.
Rankin, L. I.	So. Chem. E.	402 Horne St.	Greensboro, N. C.
Raper, Chas. D.	Fr. Ag. Spec.	Poultry Plant	Welcome, N. C.
Rascoe, Cliff L., Jr.	Fr. Tex.	101 1st, Box 3101	Mebane, N. C.
Rascoe, J. Horace	Fr. A. H.	222 Park Ave.	Burlington, N. C.
Rascoe, W. E.	Fr. Tex.	101 1st, Box 3101	Mebane, N. C.
Ray, Horace G.	Sr. B. Ad.	Dixie Trail at Hillsboro Rt. 7	Raleigh, N. C.
Ray, Ralph T.	Fr. Chem. E.	11 South, Box 3707	Burnsville, N. C.
Reams, F. W.	Sr. Voc. Agr.	1620 Hillsboro St.	Apex, N. C.
Redding, R. D.	So. Tex.	Gymnasium	Decatur, Ill.
Redding, Wm. R.	Fr. M. E.	227 7th, Box 3359	Lucama, N. C.
Redmon, C. A.	Jr. V. Ed.	238 1911, Box 3778	Greensboro, N. C.
Redmond, W. F.	Jr. Dairy Mfg.	111 Watauga, Box 3011	Statesville, N. C.
Reed, H. Atwater	Jr. Ind. Eng.	307 1911, Box 3787	McKeesport, Penna.
Reese, W. T., Jr.	Sr. Chem. E.	15 Maiden Lane	Hamlet, N. C.
Reeves, Myron	Jr. E. E.	336 1911, Box 3816	Mt. Olive, N. C.
Reighard, Lynn E., Jr.	So. H. S. T.	S Ferndell Lane	Swannanoa, N. C.
Reitzel, J. L.	Jr. Ag. Ed.	2310 Hillsboro St.	Elmwood, N. C.
Renn, James D.	Fr. Chem. E.	at home, 2210 Circle St.	Raleigh, N. C.
Rex, Ray W.	So. Bus.	129 7th, Box 5184	Decatur, Ill.
Rhodes, John H.	So. B. Ad.	308 7th, Box 3374	Chambersburg, Pa.
Rhodes, Wm. H.	Irr. Ag. Ec.	at home, 713 Boylan Drive	Raleigh, N. C.
Rhyne, Myron A.	Jr. Tex.	330 7th, Box 5562	Kings Mtn., N. C.

Name	*Classification*	*College Address*	*Home Address*
Rhyne, Marshall H.	Jr. Tex.	224 Woodburn Rd.	Mt. Holly, N. C.
Riccardelli, Edward S.	So. H. S. T.	120 Groveland Ave.	Orange, N. J.
Richardson, Jas. F.	Sr. E. E.	106 Horne St., Box 5381	Monroe, N. C.
Richardson, Jas. H.	Fr. E. E.	7 Maiden Lane	Dover, N. C.
Richardson, Oliver G.	So. Ag. Ed.	6 Maiden Lane	New Bern, N. C.
Richie, T. L.	Jr. Tex.	202 Watauga, Box 3020	Gastonia, N. C.
Riddick, Chas. R.	So. M. E.	140 1911, Box 3740	Hertford, N. C.
Riddick, J. G.	Jr. B. Ad.	313 South, Box 3577	Whaleyville, Va.
Rideout, Frank E.	Fr. Ag. Ed.	301 1911, Box 3781	Warrenton, N. C.
Reidell, Chas. E.	Sr. Accts.	1710 Hillsboro St.	East Orange, N. J.
Riggan, Evelyn	Jr. H. S. T.	at home, 114 S. East St.	Raleigh, N. C.
Riley, Chas. G.	Fr. For.	2220 Hillsboro St.	Pleasant Gard., N. C.
Riley, M. M.	Sr. For.	2729 Everett Ave., Box 5657, (S. C. S.)	Raleigh, N. C.
Rimmer, Buford E.	Fr. Ind. Chem.	323 South, Box 3587	Statesville, N. C.
Rion, M. E.	Jr. M. E.	3306 Hillsboro, Box 5342	Tryon, N. C.
Rivenbark, Edwin L.	Jr. M. E.	3306 Hillsboro, Box 5342	Laurinburg, N. C.
Rivenbark, T. Alexander	Fr. E. E.	125 South, Box 3525	Watha, N. C.
Roach, W. C.	Jr. V. Ed.	107 1911, Box 3707	Climax, N. C.
Robbins, Ethan C.	Fr. B. Ad.	109 1911, Box 3709	St. Augustine, Fla.
Robbins, J. S.	Fr. Tex. Mfg.	301 4th, Box 3121	Trinity, N. C.
Roberts, C. D., Jr.	Sr. A. E.	203 5th, Box 3215	Monroe, N. C.
Roberts, Edward G.	Fr. For.	203 7th, Box 3335	Southampton, Pa.
Roberts, J. D.	So. Agr.	12 Enterprise	Mt. Gilead, N. C.
Roberts, Thos. H.	Jr. S. and B.	2609 Clark, Box 5162	Asheville, N. C.
Roberts, Woodrow W.	So. For.	2609 Clark Ave.	Marshall, N. C.
Robertson, C. H.	So. B. Ad.	130 Forest Rd.	Charlotte, N. C.
Robertson, H. F.	Fr. B. Ad.	204 Forest Rd.	Raleigh, N. C.
Robey, W. M., Jr.	Sr. M. E.	6 Maiden Lane	Charlotte, N. C.
Robinson, Austin W., Jr.	So. E. E.	332 South, Box 3596	Greensboro, N. C.
Rodwell, David W.	So. B. Ad.	326 7th, Box 3392	Warrenton, N. C.
Roessler, Carl G.	Fr. Ed.	125 7th, Box 3325	Woburn, Mass.
Rogers, A. G., Jr.	Sr. B. Ad.	at home, 1006 Glenwood Ave.	Raleigh, N. C.
Rogers, Arthur H.	Sr. B. Ad.	at home, 1100 Glenwood Ave.	Raleigh, N. C.
Rogers, Chas. N.	Jr. E. E.	at home, 1510 Scales St.	Raleigh, N. C.
Rogers, E. T.	Jr. Chem. E.	at home, 1006 Glenwood Ave.	Raleigh, N. C.
Rogers, W. H.	So. B. Ad.	605 Hillsboro St.	Fuquay Spgs., N. C.
Rollins, Philip P.	So. E. E.	1806 Hillsboro St.	Apex, N. C.
Roper, E. L.	So. M. E.	119 1911, Box 3719	Washington, N. C.
Ross, Geo. R., Jr.	Fr. M. E.	at home, 1130 Harvey St.	Raleigh, N. C.
Rowland, M. R.	Grad. Ed.	No. 5 College Ct. Apts.	Richfield, N. C.
Rowland, W. A.	So. Ind. Arts.	No. 5 College Ct. Apts.	Richfield, N. C.
Roy, Roscoe A.	So. B. Ad.	121 7th, Box 3321	Louisville, Ky.

Name	*Classification*	*College Address*	*Home Address*
Royal, Jake A.	Sr. M. E.	Gym	Benson, N. C.
Rudy, Daniel	So. Biol.		
Ruffner, Robt. F.	Jr. Arch. E.	at home, 1910 Park Drive	Raleigh, N. C.
Russ, Henry L.	Sr. B. Ad.	216 Watauga, Box 3034	Wilmington, N. C.
Rutledge, Jno. H., Jr.	So. Tex.	21 Enterprise St.	Kannapolis, N. C.
Rydingsvard, T. A.	Sr. C. E.	8 Maiden Lane, (Box 5627 S. C. S.)	Norfolk, Va.
Ryon, W. G.	Fr. Biol.	333 7th, Box 3399	Wilmington, Del.
Sabol, A. S.	So. Ar. E.	205 Watauga, Box 5321	Campbell, Ohio
Sabol, S. V.	Fr. Tex.	205 Watauga, Box 5321	Campbell, Ohio
Salem, Joseph R.	Sr. E. E.	313 1911, Box 3793	New Bern, N. C.
Sams, Katherine	Grad. Psychology	at home, 2603 Clark Ave.	Raleigh, N. C.
Satterfield, G. H.	Grad. Zoöl.	407 W. Park Drive	Raleigh, N. C.
Satterfield, Preston, Jr.	Fr. Agr.	318 1911, Box 3798	Roxboro, N. C.
Satterfield, Wm. T.	Fr. Tex.	2410 Everett Ave. (Box 5412 S. C. S.)	Edenton, N. C.
Sauls, J. B.	So. Cer. E.	308 Chamberlain St. (Box 5393 S. C. S.)	Ayden, N. C.
Saunders, Henry K.	Sr. E. E.	308 Chamberlain St. (Box 5393 S. C. S.)	Newark, N. J.
Saunders, M. G., Jr.	Fr. M. E.	204 1911, Box 3744	Wilmington, N. C.
Saunders, Winborn W.	Fr. Tex.	205 5th, Box 3217	Albemarle, N. C.
Sawyer, J. W.	Sr. E. E.	308 Chamberlain St. (Box 5393 S. C. S.)	Pembroke, N. C.
Sawyer, T. C., Jr.	Fr. Agr.	219 7th, Box 3351	Belcross, N. C.
Scaff, W. H.	So. B. Ad.	208 Ashe Ave.	Moyock, N. C.
Scales, J. Farley	So. Ind. Mgt.	at home, 1005 Vance St.	Raleigh, N. C.
Scarboro, W. F.	Sr. B. Ad.	1306 Hillsboro St.	Mt. Gilead, N. C.
Schaub, Corinne	Spec. Poul.	Western Blvd.	Winston-Salem, N. C.
Schaub, Maud K.	Grad. Ed.	Western Blvd.	Raleigh, N. C.
Schindler, F. S.	So. M. E.	307 4th, Box 3133	Youngstown, Ohio
Schmutz, Geo. H.	Irr. E. E.	2702 Hillsboro St.	Palmerton, Pa.
Schnaufer, Meredith, W.	Fr. B. Ad.	305 4th, Box 3131	Columbiana, Ohio
Schofield, R. L.	Jr. B. Ad.	1905 Park Drive	Mullins, S. C.
Schoof, Hubert F.	Fr. Agr.	325 7th, Box 3391	Wortendyke, N. J.
Schulken, Eugene P.	Fr. B. Ad.	1922 Hillsboro St. (Box 5565 S. C. S.)	Wilmington, N. C.
Schwartz, William	So. L. A.	316 7th, Box 3382	Adams, Mass.
Scott, A. H.	Sr. Agr.	3016 Hillsboro St.	Haw River, N. C.
Scruggs, W. K.	Jr. E. E.	at home, 1105 W. Lenoir St.	Raleigh, N. C.
Seago, Stanley Z.	Fr. M. E.	at home, 107 Ashe Ave.	Raleigh, N. C.
Seagraves, W. P.	Grad. Physics	U. S. Weather Bureau	Apex, N. C.
Sears, Thos. H.	Jr. Agr.	407 Dixie Trail	Morrisville, N. C.

Name	*Classification*	*College Address*	*Home Address*
Seewald, E. Chester	So. E. E.	321 South, Box 3585	Mt. Airy, N. C.
Seifert, Chas. W.	Sr. Ind. Mgt.	1922 Hillsboro St.	New Bern, N. C.
Seitz, Robert W.	Fr. Chem. E.	116 Woodburn Road	Camp Hill, Penna.
Seitz, Rudolph J.	Jr. For.	124 7th, Box 5282	Homestead, Penna.
Seligson, Birdena	Fr. Ed.	at home, 230 S. Swain St.	Raleigh, N. C.
Sellars, Wm. R.	So. Agr.	305 Watauga, Box 3041	Mebane, N. C.
Sellers, Burton S.	Sr. Mktg.	301 Hillcrest Rd.	Goldsboro, N. C.
Sellers, D. H.	Fr. Agr.	114 N. Boylan Ave.	Oxford, N. C.
Senter, D. R.	Sr. Ag. Ed.	at home	Apex, N. C.
Senter, Neil L.	Fr. Biol.	2004 Hillsboro	Kipling, N. C.
Separk, J. P.	Sr. Tex.	at home, 215 W. Jones St.	Raleigh, N. C.
Setser, Alex L.	Sr. For.	206 Chamberlain St.	Franklin, N. C.
Setzer, Aubrey J.	Sr. Chem. E.	304 1911, Box 3784	Erlanger, N. C.
Sewell, Milburn E.	Fr. For.	304 4th, Box 3130	Moscow, Pa.
Sewell, P. G.	So. Chem.	130 Forest Rd.	Monroe, N. C.
Shafer, Raymond E.	Jr. Ind. Eng.	10 N. East St.	Nazareth, Pa.
Sharp, Walter C., Jr.	Sr. B. Ad.	2513 Clark Ave.	Beach Haven, N. J.
Shaw, D. C.	Sr. A. H.	216 Forest Rd.	Kerr, N. C.
Shaw, Joseph E.	So. Tex.	202 7th, Box 3334	Macon, N. C.
Shaw, K. J.	Sr. Plant Path.	No. 1 Hope St.	Durham, N. C.
Shaw, R. A.	Jr. M. E.	at home, 624 W. South St.	Raleigh, N. C.
Shaw, Wm. M.	Fr. E. E.	132 1911, Box 3732	Winton, N. C.
Sheffield, Dewey B.	So. Ag. Ed.	8 Ferndell Lane	Spies, N. C.
Sheffield, Edwin L.	So. Tex.	311 1911, Box 3791	Warsaw, N. C.
Shepherd, M. L.	Sr. E. E.	Y. M. C. A.	Orrum, N. C.
Shepherd, N. Christine	So. H. S. T.	123 Woodburn Rd.	Raleigh, N. C.
Shepherd, Wm. W.	Sr. Chem. E.	1922 Hillsboro St.	Portsmouth, Va.
Sherman, R. M., Jr.	Fr. Arch. E.		
Sherrill, Russell G.	Fr. B. Ad.	at home, 323 Hillsboro St.	Raleigh, N. C.
Shia, Wm. S.	Fr. M. E.	212 South, Box 3544	
Shinn, J. B., Jr.	Jr. Mktg.	2405 Clark Ave.	Raleigh, N. C.
Shinn, M. L.	Jr. B. Ad.	203 6th, Box 3251	Concord, N. C.
Shoe, Fletcher A.	Grad. Dairy Mfg.	N. Dawson St. (Office of Glenwood Mfg. Co.)	Mebane, N. C.
Shope, Wm. I.	Jr. Ag. Ed.	117 Forest Road	Swannanoa, N. C.
Shrecengost, Clair L.	Fr. B. Ad.		
Shugart, A. G.	Jr. For.	311 Watauga, Box 3047	Yadkinville, N. C.
Shugart, M. W., Jr.	So. For.	311 Watauga, Box 3047	Yadkinville, N. C.
Shumate, A. E.	Fr. Tex.	303 Watauga, Box 3039	Leaksville, N. C.
Shuping, Van	Jr. Chem. E.	211 Hawthorne Rd.	Morganton, N. C.
Silver, Geo. E.	Grad. Ed.	at home, 120 Groveland Ave.	Raleigh, N. C.
Silver, Horace A.	Jr. H. S. T.	at home, 120 Groveland Ave.	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Silver, Samuel A.	Sr. B. Ad.	at home, 120 Groveland Ave.	Raleigh, N. C.
Silver, Virginia	Fr. H. S. T.	at home, 120 Groveland Ave.	Raleigh, N. C.
Simkins, F. E.	So M. E.	212 7th, Box 3344	Goldsboro, N. C.
Simmons, E. R.	So. E. E.	203 Chamberlain St.	Winston-Salem, N. C.
Simms, Carson I.	Fr. Tex.	119 Chamberlain St.	Charlotte, N. C.
Sims, Robert S.	So. Ag. Ed.	217 South, Box 3549	Harrisburg, N. C.
Sinclair, E. G., Jr.	So. Chem. E.	at home, 3153 Stanhope, Ave.	Raleigh, N. C.
Singletary, Herbert J.	So. A. H.	227 1911, Box 3767	Lumberton, N. C.
Singletary, Linwood M.	Fr. Agr.	124 1911, Box 3724	Lumberton, N. C.
Singletary, R. B.	Sr. Tex.	330 7th, Box 5562	Clarkton, N. C.
Sink, T. L.	Fr. B. Ad.	212 6th, Box 3260	Thomasville, N. C.
Sisell, Brock C.	Fr. B. Ad.	2702 Hillsboro St. (Box 5156 S. C. S.)	Winston-Salem, N. C.
Sledge, Wm. F.	So. M. E.	201 1st, Box 3106	Whiteville, N. C.
Sloan, F. H.	Sr. E. E.	205 Woodburn Rd. (Box 5374 S. C. S.)	Charlotte, N. C.
Sloan, M. W.	So. Arch.	204 E. Park Drive	Charlotte, N. C.
Sloan, W. G.	Sr. Tex.	1720 Hillsboro St.	Wilmington, N. C.
Slocum, Geo. K.	Grad. For.	10 E. Dixie Drive	Raleigh, N. C.
Smith, C. M., Jr.	Sr. E. E.	316 1911, Box 3796	Fountain, N. C.
Smith, D. C., Jr.	Sr. Tex. Mfg.	8 Maiden Lane (Box 5627 S. C. S.)	Reidsville, N. C.
Smith, Edwin B.	So. M. E.	2310 Hillsboro St.	Henderson, N. C.
Smith, F. H.	Grad. Chem.	1715 Hillsboro St.	Cornelius, N. C.
Smith, Farmer S., Jr.	Fr. M. E.	at home, 627 E. Hargett St.	Raleigh, N. C.
Smith, Gordon, Jr.	Fr. M. E.	at home, 3 E. North St.	Raleigh, N. C.
Smith, George H., Jr.	Sr. A. H.	105 Harrison St., (Box 5374 S. C. S.)	White Oak, N. C.
Smith, Howard C.	Fr. S. and B.	130 7th, Box 3330	Kipling, N. C.
Smith, J. Lindsay	Jr. M. E.	225 1911, Box 3765	Reidsville, N. C.
Smith, John W.	Jr. E. E.	105 5th, Box 3205	Mars Hill, N. C.
Smith, Martha Williams	Fr. Chem.	at home, Rt. 3	Raleigh, N. C.
Smith, Robert L.	Jr. Const. E.	131 Hawthorne Rd.	Leaksville, N. C.
Smith, Thomas O.	Fr. E. E.	2312 Hillsboro St.	Apex, N. C.
Smith, Wm. Collyer	Fr. Aero. E.	212 5th, Box 3224	Wellesley, Mass.
Smith, Willard Cyrus	Fr. C. E.	130 South, Box 3530	Garland, N. C.
Smith, Walter L.	So. M. E.	at home, 505 W. Cabarrus St.	Raleigh, N. C.
Smith, Wilford J.	Fr. Arch. E.	314 7th, Box 3308	Warrensburg, N. Y.
Smith, Wolton R.	Jr. For.	2004 Hillsboro St.	Charlotte, N. C.
Smith, W. W.	Jr. B. Ad.	2410 Hillsboro St.	Benson, N. C.
Smitherman, James S.	Fr. Tex.	203 1st, Box 3108	Troy, N. C.
Smithwick, W. J.	Sr. Chem. E.	239 1911, Box 3779	Windsor, N. C.
Smoak, S. R., Jr.	Fr. Tex. Mfg.	8 Maiden Lane, Box 5627	Greensboro, N. C.

Name	*Classification*	*College Address*	*Home Address*
Smyre, Fred W.	Jr. Chem. E.	203 South, Box 3535	Asheville, N. C.
Smyth, L. P.	Sr. M. E.	127 1911, Box 3727	Hendersonville, N. C.
Snowden, Frank S.	Jr. Chem.	Infirmary, Box 5627	Elizabeth City, N. C.
Snyder, Fulton S.	Fr. Constr. E.	210 1911, Box 3750	Winston-Salem, N. C.
Snyder, R. L., Jr.	Sr. E. E.	at home, 728 Nash Drive	Raleigh, N. C.
Sorrell, Mrs. Grace E.	Grad. Educ.	at home, 704 E. Edenton St.	Raleigh, N. C.
Southerland, Fred J.	Sr. Ag. Sp.	2230 Hillsboro St.	Willard, N. C.
Southerland, J. W.	Jr. Acctg.	218 1911, Box 3758	Goldsboro, N. C.
Spearman, Laurence W.	Fr. Ag. Ed.	18 South, Box 3614	Rose Hill, N. C.
Speer, Wm. A.	Fr. M. E.	409 Chamberlain St., (Box 5384 S. C. S.)	Boonville, N. C.
Speight, J. Brantley	So. Agr.	211 Watauga, Box 3029	Winterville, N. C.
Spence, E. L.	So. Chem. E.	115 1911, Box 3715	Kinston, N. C.
Spencer, S. W.	Sr. E. E.	316 1911, Box 3796	Maxton, N. C.
Spratt, C. A.	So. Ind. Mgt.	8 Maiden Lane	Charlotte, N. C.
Spratt, Ralph	Jr. For.	115 Forest Road	Dysortsville, N. C.
Sprinkle, G. C.	Sr. Ag. Spec.	120 Cox Ave.	Winston-Salem, N. C.
Sprinkle, J. B.	So. M. E.	302 South, Box 3566	N. Wilkesboro, N. C.
Spruill, Clarence R.	So. Chem. E.	2220 Hillsboro St.	Henderson, N. C.
Spruill, Morris S.	Fr. Ceramic E.	6 Hope St.	Mt. Olive, N. C.
Spruill, S. O., Jr.	So. E. E.	2220 Hillsboro St.	Henderson, N. C.
Stahl, Edwin H.	Sr. Constr. E.	at home, 1804 Wills Ave.	Raleigh, N. C.
Stahl, P. O.	So. M. E.	at home, 1804 Wills Ave.	Raleigh, N. C.
Stallings, G. C.	Fr. M. E.	at home, 435 Cutler St.	Raleigh, N. C.
Stanko, John T.	So. H. S. T.	2513 Clark Ave. (Box 5251 S. C. S.)	Steubenville, Ohio
Stansel, J. C., Jr.	Fr. Chem. E.	323 South, Box 3587	Allenton, N. C.
Starling, J. N.	So. E. E.	224 South, Box 3556	Hubert, N. C.
Starr, W. D.	Sr. A. H.	103 Chamberlain St.	Creswell, N. C.
Stanton, James C.	Fr. B. Ad.	103 1911, Box 3703	Ansonville, N. C.
Stein, Carl	Fr. H. Engr.	223 7th, Box 3355	Everett, Mass.
Stephens, J. Kenneth	So. H. S. T.	Gym, Box 5372	Apex, N. C.
Stephens, R. W., Jr.	Fr. M. E.	2312 Hillsboro St.	Apex, N. C.
Stephenson, Eliza	So. H. S. T.	318 Halifax (Home)	Raleigh, N. C.
Stephenson, L. M.	Sr. M. E.	At home, 621 W. Jones	Raleigh, N. C.
Stephenson, Randolph E.	Fr. E. E.	215 South, Box 3547	Gumberry, N. C.
Stepler, Richard L.	So. B. Ad.	115 Chamberlain St.	Chambersburg, Pa.
Stevens, Graham T.	Sr. B. Ad.	At home, 15 N. Harrington St.	Raleigh, N. C.
Stevens, W. W.	Grad. Soils	120 Woodburn Rd.	Raleigh, N. C.
Stingley, James M.	Jr. For.	15 Enterprise St.	Washington, Ark.
Stitt, Wayne E.	So. For.	214 7th, Box 3346	Mt. Union, Pa.
Stockard, H. W.	Jr. Chem. E.	At home, 316 North Boundary St.	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Stokely, H.	Fr. Chem. E.	2410 Everett Ave., Box 5412, S. C. S.)	Edenton, N. C.
Stone, P. E.	Jr. Chem. E.	302 1911, Box 3782	Rocky Mount, N. C.
Stonebanks, Jack L.	So. B. Ad.	At home, 515 New Bern Ave.	Raleigh, N. C.
Stoney, Howard S.	Jr. B. Ad.	2407 Clark Ave.	Watertown, Mass.
Stott, Charlie C.	Fr. Agr.	2004 Hillsboro	Wendell, N. C.
Stout, Clifford, E.	Sr. Tex.	239 1911, Box 3779	Asheboro, N. C.
Strazza, P. G.	Jr. Biol.	306 7th, Box 3372	New London, Conn.
Strickland, C. W.	So. B. Ad.	220 1911, Box 3760	Pine Level, N. C.
Strickland, E. E.	So. Const. E.	222 Clark Ave.	Scotland Neck, N. C.
Strickland, H. H.	Jr. Ind. Mgt.	6 Enterprise St.	Rocky Mount, N. C.
Stroud, Albert M.	So. Chem. E.	115 1911, Box 3715	Kinston, N. C.
Stroupe, J. E.	Sr. Mktg.	2513 Clark Ave., (Box 5241, S. C. S.)	Raleigh, N. C.
Stuart, Tommy L.	Fr. Ag. Ec.	3016 Hillsboro St.	Mebane, N. C.
Styron, Charles W.	Jr. Chem. E.	2405 Clark Ave.	New Bern, N. C.
Sugg, Arthur V.	Fr. Arch. E.	118 1911, Box 3718	Apex, N. C.
Sugg, J. S.	Jr. Dairying	325 1911, Box 3805	Whitakers, N. C.
Sullivan, G. Elias	Grad. Arch. E.	107 Chamberlain St. (home)	Raleigh, N. C.
Sullivan, W. H., Jr.	Soph. M. E.	330 1911, Box 3810	Greensboro, N. C.
Summers, Hubert A.	Fr. Agr.	309 6th, Box 3269	Elon College, N. C.
Summers, J. L.	So. M. E.	302 7th, Box 3368	Laurinburg, N. C.
Summey, Lamar S.	So. Bus.	103 Chamberlain	Dallas, N. C.
Sumner, Wm. L., Jr.	Fr. H. S. T.	At home, 218 S. East St.	Raleigh, N. C.
Surratt, C. W., Jr.	Fr. Chem. E.	322 South, Box 3586	Wilson, N. C.
Sutherland, F. W.	Jr. B. Ad.	228 1911, Box 3768	Flushing, N. Y.
Sutton, F. M.	Fr. Chem. E.	211 5th, Box 3223	Monroe, N. C.
Swain, J. D.	Jr. Arch.	321 1911, Box 3801	Greenville, N. C.
Swain, Leonard	Fr. Ag. Ed.	4 South, Box 3600	Roper, N. C.
Swain, T. T.	So. E. E.	221½ Forest Road	Henderson, N. C.
Sykes, E. R., Jr.	Jr. Ind. Mgt.	1922 Hillsboro St., (Box 5565, S. C. S.)	Wendell, N. C.
Talton, John Thos.	Fr. B. Ad.	At home	Clayton, N. C.
Talton, Raymond S.	Fr. M. E.	124 South, Box 3524	Smithfield, N. C.
Tate, Nelson H., Jr.	So. Constr. E.	240 1911, Box 3780	Richmond, Va.
Tatum, Alfred N., Jr.	So. Agr.	Route 3 (at home)	Raleigh, N. C.
Taylor, A. B.	Jr. C. E.	2702 Hillsboro St.	Kershaw, S. C.
Taylor, Claud D.	Sr. B. Ad.	328 7th, Box 3394	Raleigh, N. C.
Taylor, Edward T., Jr.	So. Tex.	204 1911, Box 3744	Wilmington, N. C.
Taylor, Leslie M.	Jr. C. E.	135 1911, Box 3537	Sea Level, N. C.
Taylor, O. B.	Grad.	115 Chamberlain	Raleigh, N. C.
Taylor, Rockie Lee	Spec. Ed.	402 Horne St.	Conway, N. C.
Taylor, Willis P., Jr.	Fr. M. E.	213 7th, Box 3345	Littleton, N. C.
Teague, T. S., Jr.	Fr. E. E.	106 Watauga, Box 3006	Fairmont, N. C.
Tedder, H. M.	Sr. Ag. Ed.	110 Watauga, Box 3010	Ellenboro, N. C.

Name	*Classification*	*College Address*	*Home Address*
Teitelman, Sidney H.	Fr. B. Ad.	202 1st, Box 3107	New Haven, Conn.
Terrell, John W.	Fr. M. E.	200 E. Edenton St., Bailey Apts.	Lenoir, N. C.
Tew, Roland E.	Sr. C. E.	222 Park Ave.	Portsmouth, Va.
Tharp, Worth	So. Bus.	208 5th, Box 3220	Monroe, N. C.
Thayer, Wyatt	So. B. Ad.	324 South, Box 3588	Eldorado, N. C.
Thiem, Maurice P.	So. M. E.	At home, 502 Cutler	Raleigh, N. C.
Thigpen, John K.	Fr. E. E.	336 1911, Box 3789	Rocky Mount, N. C.
Thomas, Ann Elizabeth	Grad. Educ.		
Thomas, C. D.	Jr. Agr. Econ.	4 Maiden Lane	Reidsville, N. C.
Thomas, C. J.	So. Ag. Ed.	221½ Forest Rd.	Troy, N. C.
Thomas, D. B.	Grad. Physics	2302 Hillsboro St.	Gibsonville, N. C.
Thomas, Fred A., Jr.	Jr. Tex.	8 Maiden Lane, Box 5484	High Point, N. C.
Thomas, Jerome W.	Fr. Tex.	11 South, Box 3607	Morven, N. C.
Thomas, Richard G.	Fr. Physics	306 1911, Box 3786	Gibsonville, N. C.
Thomason, H. E.	Sr. Ind. Eng.	332 1911, Box 3812	Salisbury, N. C.
Thomason, Max D.	Sr. M. E.	5 College Ct. Apts.	Salisbury, N. C.
Thompson, Bill	Jr. Bus.	2412 Everett Ave.	Clinton, N. C.
Thompson, C. P.	Fr. Bus.	At home, Route 1	Raleigh, N. C.
Thompson, Frederick N.	Fr. Aero. E.	315 South, Box 3579	Wilson, N. C.
Thompson, Geo. S.	Fr. B. Ad.	2612 Clark Ave.	Haw River, N. C.
Thompson, J. E.	Grad. Chem. E.	106 Glenwood Ave.	Hamlet, N. C.
Thompson, L. C.	So. Chem. E.	114 7th, Box 5224	Hamlet, N. C.
Thompson, L. F.	Sr. Ag. Spec.	1620 Hillsboro St.	Jamestown, N. C.
Thompson, W. G.	So. M. E.	213 1911, Box 3753	High Point, N. C.
Thompson, Wm. H.	Jr. Agri.	2 Y. M. C. A.	Jacksonville, N. C.
Thompson, Willis H.	Fr. Bus.	At home, 109 East Whitaker Mill Rd.	Raleigh, N. C.
Thomson, J. W.	Fr. Constr. E.	216 7th, Box 3348	Fayetteville, N. C.
Thornton, James E.	Fr. For.	4 South, Box 3600	Hampton, Va.
Thornton, Sam G.	Fr. Ed.	126 Woodburn Rd.	Winston-Salem, N. C.
Thorneburg, S. M.	Jr. Land. A.	240 1911, Box 3780	Hickory, N. C.
Tillery, Doris	Grad. Physics	Meredith College	Scotland Neck, N. C.
Tilley, Robert H.	So. Voc. Agr.	112 Cox Ave.	Bahama, N. C.
Tilson, C. Y.	Jr. A. H.	140 1911, Box 3740	Mars Hill, N. C.
Tinsley, Wm. D.	Fr. Tex.	218 South, Box 3550	Spencer, N. C.
Todd, Hubert	Fr. Chem. E.	302 Watauga, Box 3038	Tabor, N. C.
Topping, E. M.	Jr. Chem. E.	308, 1911, Box 3788	Hampton, Va.
Torrence, D. A., Jr.	Sr. Tex.	216 Watauga, Box 3034	Petersburg, Va.
Traynham, Thos. H.	Fr. B. Ad.	123 Brooks Ave., (Box 5274, S. C. S.)	Fairmont, N. C.
Treverton, E. C.	So. M. E.	306 Watauga, Box 3042	Marion, N. C.
Trexler, Carl E.	Jr. Chem. E.	2513 Clark Ave.	Salisbury, N. C.
Troshkin, Paul N.	So. Bus.	120 7th, Box 5091	New York City.
Trostel, G. H.	So. Chem. E.	2405 Clark Ave.	Canton, N. C.
Troutman, J. H.	Sr. Tex.	237 1911, Box 3777	Statesville, N. C.
Troutman, W. D., Jr.	Fr. Ind. Arts	110 5th, Box 3210	Troutman, N. C.
Troy, Samuel A., Jr.	Jr. Tex.	2513 Clark Ave.	Wilmington, N. C.
Tucker, Glendel L.	Gr. S&B.	319 South, Box 3583	Grifton, N. C.

Name	*Classification*	*College Address*	*Home Address*
Tucker, Hubert L.	Fr. Chem. E.	120 South, Box 3520	Winston-Salem, N. C.
Tucker, L. Grafton, Jr.	Fr. Aero.	20 Logan Court	Lovingston, Va.
Tull. Reid	Sr. Tex.	At home, 6 Maiden Lane	Raleigh, N. C.
Tulluck, W. E.	Sr. Constr. E.	308 6th, Box 5441	Sanford, N. C.
Turlington. Chas. W.	Fr. B. Ad.	116 Woodburn Rd.	Fayetteville. N. C.
Turner, W. M.	Sr. Constr. E.	At home, 2316 Hillsboro St.	Raleigh, N. C.
Tuttle, Mills M., Jr.	So. For.	220 7th, Box 3352	Monroe, N. C.
Tyson, Alfred F., Jr.	So. B. Ad.	306 1911, Box 3786	Black Mtn., N. C.
Underwood, Carl G.	Fr. Agr.	104 6th, Box 3240	Waynesville, N. C.
Upchurch, Emily D.	Sr. H. S. T.	402 E. Hargett St., (Home)	Raleigh, N. C.
Upchurch, John W.	Fr. Ed.	At home, 621 Wills Forest	Raleigh, N. C.
Upham, Bernard G.	Fr. Aero. E.	303 6th, Box 3263	Biddeford, Maine.
Utley, Jim J.	So. B. Ad.	112 7th. Box 5224	Concord, N. C.
Utley, Wm. H.	Fr. For.	At home, 905 West Lenoir St.	Raleigh, N. C.
Usenoff. Boris A.	Jr. Tex.	3000 Hillsboro St.	Suchindoe, Bulgaria
Vaamonde, Joe A.	Fr. Agr.	104 5th. Box 3204	Ceiba, Porto Rico
Vaden, J. B.	Jr. Chem.	At home, 415 Elm	Raleigh, N. C.
Vance, Horace H.	Sr. M. E.	334 1911, Box 3814	Winston-Salem, N. C.
VanHook. R. I.	Sr. B. Ad.	327 Bland Hotel	Blanche, N. C.
Vann, Wm. John	Fr. Ag. Ed.	115 7th, Box 3315	Rich Square, N. C.
Vaughan, Edgerton M.	Fr. Chem. E.	1710 Hillsboro St.	Jackson, N. C.
Veach, Henry H.	Fr. Agr.	20 Bagwell Ave.	Willard, N. C.
Vestal, W. C., Jr.	Fr. Chem. E.	302 5th. Box 3226	Richmond, Va.
Vick, Robt. E.	Fr. M. E.	106 Horne St.	Sanford, N. C.
Vincent. J. S., Jr.	So. B. Ad.	105 6th, Box 4231	Mebane, N. C.
Vitello. Daniel P.	Fr. B. Ad.	123 South, Box 3523	Belleville, N. J.
Volkmann. Joseph H.	Fr. B. Ad.	15 Maiden Lane	Weehawken, N. J.
Wagner, I. L., Jr.	So. C. E.	110 5th, Box 3210	Troutman, N. C.
Wakefield, Olaf	Jun. Ag. Ec.	15 Maiden Lane	Albertville, Ala.
Wakeman, Ralph A.	Fr. M. E.	2402 Hillsboro St.	Fredericksburg, Va.
Walker, Harry	So. B. Ad.	310 Watauga, Box 3046	Hillsboro, N. C.
Walker, R. A.	So. Chem. E.	310 6th, Box 3270	Gibsonville, N. C.
Wall, Eugene	Fr. M. E.	At home, 826 N. Person	Raleigh, N. C.
Wall, Malcolm D.	Fr. Physics	217 7th, Box 3349	Enfield, N. C.
Wallace, James H.	Sr. C. E.	334 7th, Box 5562	Yadkinville, N. C.
Wallace, Oliver A., Jr.	Fr. Chem. E.	231 1911, Box 3771	Wrightsville Beach, [N. C.
Wallace, Wesley	Grad. Ed.	3201 Hillsboro St., (Home)	Raleigh, N. C.
Walsak, Robert	Fr. C. E.	211 7th, Box 3343	Wilmington, N. C.
Walsh, Frederick G.	Fr. Ed.	213 South, Box 3545	New Bedford, Mass.
Walsh, Jack E.	Fr. B. Ad.	117 Hillcrest Rd.	Beach Haven, N. J.
Walters, W. M.	Jr. Acctg.	304 1911, Box 3706	Lumberton, N. C.
Ward, Archie F., Jr.	Sr. Bus.	Y. M. C. A.	Lumberton, N. C.

Name	*Classification*	*College Address*	*Home Address*
Ward, Bernice L.	Fr. Agr.	328 South, Box 3592	Pittsboro, N. C.
Ward, Stephen A.	Fr. Tex.	308 Watauga, Box 3044	Lumberton, N. C.
Ward, Wm. Hubert	Sr. Tex.	15 Maiden Lane	Thomasville, N. C.
Warren, C. E.	Fr. Educ.	115 7th, Box 3315	Rich Square, N. C.
Warren, J. Hubert	So. Chem. E.	2407 Clark Ave.	Winston-Salem, N. C.
Warren, R. P.	Sr. Tex.	311 Hillcrest	Snow Hill, N. C.
Warren, Robt. S.	Sr. Sci.	222 Chamberlain	Raleigh, N. C.
Watkins, J. Arthur	Fr. B. Ad.	117 Watauga, Box 3017	Andrews, N. C.
Watson, Frank G.	Fr. Agr.	318 South, Box 3582	Rocky Mount, N. C.
Watson, Henry Elwin	Fr. B. Ad.	106 Watauga, Box 3006	Kenly, N. C.
Watson, S. Robt., Jr.	Fr. E. E.	222 7th, Box 3354	Henderson, N. C.
Watt, W. N.	Sr. San. Eng.	206 1911, Box 3746	Statesville, N. C.
Watters, Edmund A.	Fr. Chem. E.	308 South, Box 3572	Fort Bragg, N. C.
Weathersbee, J. A., Jr.	So. Aero.	207 5th, Box 3219	Scotland Neck, N. C.
Weaver, H. R.	Sr. Ag. Sp.	409 Dixie Trail	Mebane, N. C.
Weaver, L. C.	So. Tex.	201 1911, Box 3741	Rocky Mount, N. C.
Weaver, Pauline	Fr. Biol.	2404 Hillsboro St.	Rocky Mount, N. C.
Webb, D. Locke	Jr. Chem. E.	2407 Clark Ave.	Mt. Airy, N. C.
Webb, Harold W.	Fr. B. Ad.	103 Watauga, Box 3003	Charlotte, N. C.
Webb, James W.	Jr. B. Ad.	215 Watauga, Box 3033	Charlotte, N. C.
Webb, Louis B.	Fr. Chem. E.	2407 Clark Ave.	Mt. Airy, N. C.
Weeks, L. T.	So. Ag. Ed.	324 Park Drive	Varina, N. C.
Welden, Wm. C.	Grad. Ag. Ec.	106 Horne St.	Raleigh, N. C.
Welling, A. F.	So. B. Ad.	320 7th, Box 3386	Charlotte, N. C.
Wells, J. M., Jr.	Fr. B. Ad.	3 Hope St.	Elm City, N. C.
Wesson, Wm. H., Jr.	Fr. B. Ad.	6 Enterprise St.	Warrenton, N. C.
West Julian R.	Fr. Constr. E.	215 1911, Box 3755	Statesville, N. C.
West, W. Zeb	Fr. E. E.	224 Woodburn Rd.	Winston-Salem, N. C.
Westbrook, J. H., Jr.	Fr. M. E.	218 7th, Box 3350	Wilmington, N. C.
Westmoreland, Robt. A.	Fr. M. E.	116 South, Box 3516	Blackstone, Va.
Westmoreland, Truman	Fr. Agr.	Greenwood, Box 5081	Nealsville, N. C.
Weston, H. R.	So. Ceramics	229 1911, Box 3769	Rich Square, N. C.
Wheeler, Guy	So. Agr.	309 South, Box 3573	Burlington, N. C.
Wheless, Gilbert B.	So. B. Ad.		
Wheless, R. E. L., Jr.	So. Chem. E.	311 1911, Box 3791	Warsaw, N. C.
White, Howard, Jr.	Fr. Educ.	At home, 1525 Carr St.	Raleigh, N. C.
White W. H.	So. M. E.	314 1911, Box 3794	Greensboro, N. C.
Whitehead, Carl T., Jr.	Fr. B. Ad.	107 South, Box 3507	Morehead City, N. C.
Whitehead, F. Dave, Jr.	Sr. Aero.	308 Chamberlain St., (Box 5393, S. C. S.)	Greensboro, N. C.
Whitehouse, Roy F.	Fr. E. E.	202 5th, Box 3214	Wellesley, Mass.
Whitehurst, Walter C.	Fr. Bus.	302 Watauga, Box 3038	Bethel, N. C.
Whitener, H. D.	So. Tex.	109 Watauga, Box 3009	Gastonia, N. C.
Whitener, J. Summie	Grad. Botany	1202 Cowper Drive	Raleigh, N. C.
Whitesell, Max C.	Sr. For.	310 6th, Box 3270	Gibsonville, N. C.
Whitley, Duke D.	Fr. B. Ad.	At home	Clayton, N. C.
Whitley, John S.	Fr. Aero. E.	At home, 912 Boylan Drive	Raleigh, N. C.

Name	*Classification*	*College Address*	*Home Address*
Whitmarsh, R. D., Jr.	So. For.	320 1911, Box 3800	Black Mtn., N. C.
Whitt, Darnell M.	Jr. Soils	6 Y. M. C. A., (Box 5692, S. C. S.)	Greensboro, N. C.
Whitted, Alvis M.	So. M. E.	207 Watauga, Box 3025	Varina, N. C.
Wicker, J. F.	Fr. Arch. E.	6 Hawthorne Rd.	Greensboro, N. C.
Wiley, A. L.	Jr. Chem. E.	229 South, Box 3561	Highlands, N. C.
Wilkes, J. W., Jr.	So. Tex.	222 Park Ave.	Hamlet, N. C.
Wilkins, L. P.	Jr. Tex.	314 Watauga, Box 3050	Haw River, N. C.
Wilkins, Thad D.	Fr. M. E.	322 7th, Box 3388	Saluda, N. C.
Willett, Jas. H.	So. Const. E.	At home, 18 Glenwood Ave.	Raleigh, N. C.
Williams, C. A., Jr.	Jr. Chem. E.	233 1911, Box 3773	Wilmington, N. C.
Williams, Carl C.	So. M. E.	2405 Clark Ave.	Canton, N. C.
Williams, Dorus C., Jr.	Fr. Tex.	131 7th, Genl. Deliv.	Rocky Mount, N. C.
Williams, Elmo T.	Fr. H. S. T.	At home	Garner, N. C.
Williams, E. K.	So. Chem. E.	233 1911, Box 3773	Wilmington, N. C.
Williams, Erwin M.	Jr. Chem., (Tex.	At home, 618 Hillsboro	Raleigh, N. C.
Williams, Emmett W.	Fr. Aero. E.	218 1911, Box 3758	Goldsboro, N. C.
Williams, F. M.	Fr. S&B	At home, 1012 Vance St.	Raleigh, N. C.
Williams, James Clay	Fr. Chem.	At home, 405 Calvin Rd.	Raleigh, N. C.
Williams, Katharine P.	Jr. Chem.	At home, 1816 Park Dr.	Raleigh, N. C.
Williams, Leslie B.	So. Chem. E.	103 1st, Box 3103	Kinston, N. C.
Williams, Redford B.	Sr. H. S. T.	Poultry Plant	McCullers, N. C.
Williams, R. C., Jr.	So. Tex.	103 Chamberlain St.	Charlotte, N. C.
Williams, Robt. Marion	Sr. Ag. Ed.	225 South, Box 3557	Rich Square, N. C.
Williams, Robin M., Jr.	Sr. Ag. Ec.	317 South, Box 3581	Hillsboro, N. C.
Williams, Sam	Fr. Agr.	218 South, Box 3550	Mouth of Wilson, Va.
Williams, Volene E.	So. H. S. T.	At home, 300 Harding	Raleigh, N. C.
Williams, V. R.	Grad. Ag. Ec.	120 Groveland	Fletcher, N. C.
Williams, Wm. L., Jr.	Sr. Bus.	At home, 1012 Vance	Raleigh, N. C.
Williamson, A. D.	Sr. Ag. Ed.	137 1911, Box 3737	Reidsville, N. C.
Williford, Wm. Earle	Grad. Ind. Mgt.	119 Chamberlain St.	Wilmington, N. C.
Willis, A. H.	Sr. Tex.	At home, 2702 Fairview Road	Raleigh, N. C.
Wills, Geo. A.	Grad. Cer.	120 Woodburn Rd.	Washington, D. C.
Wilson, A. J., Jr.	Sr. Chem.	At home, 1808 Park Dr.	Raleigh, N. C.
Wilson, Donald S.	So. B. Ad.		
Wilson, Earl W.	Fr. Tex.	110 1911, Box 3710	Haw River, N. C.
Wilson, F. Perry	Fr. Chem. E.	215 1911, Box 3755	Middleburg, N. C.
Wilson, J. E.	Sr. Ag. Ed.	409 Chamberlain St.	Shelby, N. C.
Wilson, James F.	Fr. Bus.	At home, 817 N. Blood-worth St.	Raleigh, N. C.
Wilson, John N., Jr.	So. E. E.	231 1911, Box 3771	Cullowhee, N. C.
Wilson, Lucy M.	Sr. H. S. T.	2706 Vanderbilt Ave.	Louisburg, N. C.
Wilson, Mark K., Jr.	Sr. Constr. E.	215 Watauga, Box 5001	Chattanooga, Tenn.
Winborne, Stanley, Jr.	Fr. E. E.	At home, 526 N. Wilmington St.	Raleigh, N. C.
Winchester, Samuel C.	So. Agr.	201 Hawthorne Rd.	Summerfield, N. C.

Name	*Classification*	*College Address*	*Home Address*
Winfree, Wm. J.	Fr. Tex.	409 Glenwood Ave.	Raleigh, N. C.
Winstead, L. B.	Sr. B. Ad.	At home, 1111 Mordecai Drive	Raleigh, N. C.
Withers, J. R.	Sr. Chem. E.	326 1911, Box 3806	E. Gastonia, N. C.
Wolf, Edwin A.	Sr. Chem. E.	2509 Vanderbilt Ave.	Narberth, Pa.
Woltz, Mrs. Jessie	Grad. Ed.	801 New Bern Ave.	Carthage, N. C.
Womble, J. R.	Fr. Chem. E.	130 1911, Box 3730	Rocky Mount, N. C.
Womble, Rufus	Fr. Bus.	407 Horne St. (Home)	Raleigh, N. C.
Wood, E. I., Jr.	Jr. C. E.	At home, 113 S. Dawson	Raleigh, N. C.
Wood, L. A.	So. M. E.	At home, 316 Cutler St.	Raleigh, N. C.
Wood, Richard A.	Sr. For.	116 Woodburn Rd.	Newton, N. C.
Wood, W. N.	Sr. A. H.	110 Watauga, Box 3010	Graham, N. C.
Woodbury, LeRoy B., Jr.	Sr. Ind. Mgt.	232 1911, Box 3772	Wilmington, N. C.
Woodeson, Carol G.	So. E. E.	At home	Apex, N. C.
Woodhouse, Maurice L.	Fr. Agr.	409 Chamberlain St., (Box 5384, S. C. S.)	Elizabethtown, N. C.
Woodley, Wm. T., III	So. Ind. Eng.	At home, 109 Oberlin Road	Raleigh, N. C.
Woodside, D. M.	Sr. E. E.	103 Chamberlain St.	Charlotte, N. C.
Wooten, J. W.	Fr. M. E.	113 Watauga, Box 3013	Yadkinville, N. C.
Wooten, Robert E.	Fr. Chem. E.	403 Elm St.	Cameron, N. C.
Wootten, W. E.	So. B. Ad.	205 4th, Box 5304	Hickory, N. C.
Worth, Olive P.	Grad. Ed.	Oakhurst Farm	Raleigh, N. C.
Worth, R. Barnes	So. Cer. E.	At home, Route 2	Raleigh, N. C.
Worthington, R. H.	So. B. Ad.	211 Watauga, Box 3029	Ayden, N. C.
Wright, C. C., Jr.	So. Ed.	305 6th, Box 3265	Hunting Creek, N. C.
Wright, Harry R.	Jr. For.	219 1911, Box 3759	Highlands, N. C.
Wright, Jas. O.	Jr. Ed.	225 7th, Box 3357	Norfolk, Va.
Wright, Maurice A.	Fr. E. E.	1710 Hillsboro St.	East Orange, N. J.
Wright, W. A.	Irr. Sr. Chem. E.	2232 Hillsboro St.	New Bedford, Mass.
Wynn, Carl	Fr. C. E.	213 1911, Box 3753	Lowell, N. C.
Wynne, R. W., Jr.	So. B. Ad.	At home, 2008 Hillsboro	Raleigh, N. C.
Yarbrough, Mary E.	Spec. Ed.	1715 Hillsboro St.	Raleigh, N. C.
Yarborough, Sarah E.	Jr. Sci.	At home	Cary, N. C.
Yearby, E. B., Jr.	Fr. Tex.	Apt. 3-B Edenhall Apts.	Raleigh, N. C.
Yeargan, Flora Agnes	Fr. H. S. T.	At home	Garner, N. C.
Yeargan, Sherman A.	Grad. Ed.	At home	Garner, N. C.
York, Holden E.	Jr. Ag. Ec.	115 Woodburn Rd.	Rutherfordton, N. C.
York, J. W.	Sr. Const. E.	At home, 1002 Cowper Drive	Raleigh, N. C.
York, Norman M.	Jr. E. E.	318 1911, Box 3798	Greensboro, N. C.
York, Willie Marguerite	Jr. H. S. T.	At home	Cary, N. C.
Yost, L. F., Jr.	Sr. M. E.	At home, 710 McCulloch	Raleigh, N. C.
Young, David B.	So. C. E.	229 7th, Box 3361	New York City
Zimmerman, J. Lee	Sr. Agr. Sp.	301 Park Ave.	Lexington, N. C.
Zimmerman, LeNeve	Jr. Biol.	At home, 117½ Fayetteville St.	Raleigh, N. C.
Zori, Milan	Fr. Educ.	2513 Clark Ave.	Steubenville, Ohio

Fraternity Roster, 1932-33

Organization and Address	*Telephone*
Alpha Chi Beta, 2612 Clark Avenue	2577
Alpha Gamma Rho, 116 Woodburn Road	2485
Alpha Kappa Pi, 308 Chamberlain (Mail Box 5393)	3941
Alpha Lambda Tau, 1710 Hillsboro Street	534
Beta Sigma Alpha, 2702 Hillsboro Street	4346
Delta Sigma Phi, 1922 Hillsboro Street	880
Kappa Alpha, 130 Forest Road	4567
Kappa Sigma, 21 Enterprise Street	162
Lambda Chi Alpha. 2407 Clark Avenue	4140
Phi Kappa Tau, 1306 Hillsboro Street	1651
Pi Kappa Alpha, 8 Maiden Lane	4743
Pi Kappa Phi, 1720 Hillsboro Street	4426
Sigma Nu, 2405 Clark Avenue	4572
Sigma Pi, 2513 Clark Avenue	1152
Sigma Phi Epsilon, 103 Chamberlain Street	9415
Theta Kappa Nu. 2230 Hillsboro Street	9149
Theta Phi. 232 7th Dormitory	9457

Dormitory Telephones

Watauga—	
First Floor	9461
Second Floor	9453
South—	
First Floor	9464
Second Floor	9454
Third Floor	9465
Seventh—	
First Floor	9455
Second Floor	9457
Third Floor	9458
1911—	
First Floor	9459
Second Floor	9452
Third Floor	9451
First	9460
Fourth	9463
Fifth	9462
Sixth	9456
Y. M. C. A.	558
Y. M. C. A. (Pay Phones)	9182 and 9183